Town of Arlington
Select Board

Meeting Agenda

May 18, 2020
7:15 PM
Conducted by Remote Participation

1. Executive Order on Remote Participation
2. Discussion & Approval: Shared Streets One Week Pilot
 Adam W. Chapdelaine, Town Manager
 Daniel Amstutz, Senior Transportation Planner

CONSENT AGENDA

3. Minutes of Meeting: April 27, 2020
4. For Approval: AHS Class of 2020 Banners
 Joanna Begin, AHS Graduation Committee
5. For Approval: Keno to Go
 Giles Wine & Spirits, 137-137A Massachusetts Avenue
6. Appointment of New Election Worker: (1) Savannah Curro, 21 Millett Street, U, Pct.15

PUBLIC HEARINGS

7. Proposed Tree Removal: Massachusetts Ave Sidewalk Project
 Michael Rademacher, Director of Public Works
8. Proposed Tree Removal: Lake Street/Bikeway Intersection Project
 Michael Rademacher, Director of Public Works

APPOINTMENTS

9. Disability Commission (term to expire 1/31/2023)
 Paul Parravano
10. LGBTQIA & Rainbow Commission (terms to expire 1/31/2023)
 Maura Albert
 Leonard Goldstein
 Susan Ryan-Volmer

CITIZENS OPEN FORUM

Except in unusual circumstances, any matter presented for consideration of the Board shall neither be acted upon, nor a decision made the night of the presentation

in accordance with the policy under which the Open Forum was established. It should be noted that there is a three minute time limit to present a concern or request.

TRAFFIC RULES & ORDERS / OTHER BUSINESS

11. Vote of Adoption: Arlington Hazard Mitigation Plan
 Jennifer Raitt, Director, Planning and Community Development
12. Discussion: Massachusetts FY 21 Budget
 Adam W. Chapdelaine, Town Manager
13. Discussion: Policy Review / Code of Conduct
 Diane M. Mahon, Chair
 Joseph A. Curro, Jr., Select Board
14. Discussion: June 2020 Select Board Meetings

FINAL VOTES & COMMENTS

Articles for Review:

Article 50 Endorsement of CDBG Application
Article 51 Revolving Funds
Article 52 Endorsement of Parking Benefit District Expenditures

CORRESPONDENCE RECEIVED

15. Letter and Comment to CDBG Subcommittee with Respect to CDBG Funding Enabled by the CARES Act
 Patricia Baron Warden, Former Member and Chair, Arlington Housing Authority; Town Meeting Member
16. Exclusionary Zoom Meeting Practices
 Beth Melofchik, 20 Russell Street

NEW BUSINESS

EXECUTIVE SESSION

Next Scheduled Meeting of Select Board To Be Determined

You are invited to a Zoom webinar.
When: May 18, 2020 07:15 PM Eastern Time (US and Canada)
Topic: Select Board Meeting
Please click the link below to join the webinar:
https://zoom.us/j/98422791023
Or iPhone one-tap :
US: +13126266799,,98422791023# or +16468769923,,98422791023#
Or Telephone:
Dial(for higher quality, dial a number based on your current location):
US: +1 312 626 6799 or +1 646 876 9923 or +1 301 715 8592 or +1 346 248 7799 or +1 408 638 0968 or +1 669 900 6833 or +1 253 215 8782
Webinar ID: 984 2279 1023
International numbers available: https://zoom.us/u/acrEnAnUqh

Notice to the Public on meeting privacy In the interests of preventing abuse of videoconferencing technology (i.e. Zoom Bombing) all participants, including members of the public,

wishing to engage via the Zoom App must register for *each meeting* and will notice multi-step authentication protocols. Please allow additional time to join the meeting. Further, members of the public who wish to participate without providing their name may still do so by telephone dial-in information provided above.

Members of the public are asked to send written comment to amaher@town.arlington.ma.us by May 18, 2020 at 3:00 p.m.

Documents regarding agenda items will be made available via Novus Agenda and the Town's Website.

https://www.mass.gov/doc/open-meeting-law-order-march-12-2020/download



Town of Arlington, Massachusetts

Executive Order on Remote Participation

ATTACHMENTS:

	Type	File Name	Description
🗋	Reference Material	Executive_Order_on_Remote_Participation.pdf	Executive Order on Remote Participation

OFFICE OF THE GOVERNOR
COMMONWEALTH OF MASSACHUSETTS
STATE HOUSE • BOSTON, MA 02133
(617) 725-4000

CHARLES D. BAKER
GOVERNOR

KARYN E. POLITO
LIEUTENANT GOVERNOR

ORDER SUSPENDING CERTAIN PROVISIONS OF THE OPEN MEETING LAW, G. L. c. 30A, § 20

WHEREAS, on March 10, 2020, I, Charles D. Baker, Governor of the Commonwealth of Massachusetts, acting pursuant to the powers provided by Chapter 639 of the Acts of 1950 and Section 2A of Chapter 17 of the General Laws, declared that there now exists in the Commonwealth of Massachusetts a state of emergency due to the outbreak of the 2019 novel Coronavirus ("COVID-19"); and

WHEREAS, many important functions of State and Local Government are executed by "public bodies," as that term is defined in G. L. c. 30A, § 18, in meetings that are open to the public, consistent with the requirements of law and sound public policy and in order to ensure active public engagement with, contribution to, and oversight of the functions of government; and

WHEREAS, both the Federal Centers for Disease Control and Prevention ("CDC") and the Massachusetts Department of Public Health ("DPH") have advised residents to take extra measures to put distance between themselves and other people to further reduce the risk of being exposed to COVID-19. Additionally, the CDC and DPH have advised high-risk individuals, including people over the age of 60, anyone with underlying health conditions or a weakened immune system, and pregnant women, to avoid large gatherings.

WHEREAS, sections 7, 8, and 8A of Chapter 639 of the Acts of 1950 authorize the Governor, during the effective period of a declared emergency, to exercise authority over public assemblages as necessary to protect the health and safety of persons; and

WHEREAS, low-cost telephone, social media, and other internet-based technologies are currently available that will permit the convening of a public body through virtual means and allow real-time public access to the activities of the public body; and

WHEREAS section 20 of chapter 30A and implementing regulations issued by the Attorney General currently authorize remote participation by members of a public body, subject to certain limitations;

PRINTED ON RECYCLED PAPER

NOW THEREFORE, I hereby order the following:

(1) A public body, as defined in section 18 of chapter 30A of the General Laws, is hereby relieved from the requirement of section 20 of chapter 30A that it conduct its meetings in a public place that is open and physically accessible to the public, provided that the public body makes provision to ensure public access to the deliberations of the public body for interested members of the public through adequate, alternative means.

Adequate, alternative means of public access shall mean measures that provide transparency and permit timely and effective public access to the deliberations of the public body. Such means may include, without limitation, providing public access through telephone, internet, or satellite enabled audio or video conferencing or any other technology that enables the public to clearly follow the proceedings of the public body while those activities are occurring. Where allowance for active, real-time participation by members of the public is a specific requirement of a general or special law or regulation, or a local ordinance or by-law, pursuant to which the proceeding is conducted, any alternative means of public access must provide for such participation.

A municipal public body that for reasons of economic hardship and despite best efforts is unable to provide alternative means of public access that will enable the public to follow the proceedings of the municipal public body as those activities are occurring in real time may instead post on its municipal website a full and complete transcript, recording, or other comprehensive record of the proceedings as soon as practicable upon conclusion of the proceedings. This paragraph shall not apply to proceedings that are conducted pursuant to a general or special law or regulation, or a local ordinance or by-law, that requires allowance for active participation by members of the public.

A public body must offer its selected alternative means of access to its proceedings without subscription, toll, or similar charge to the public.

(2) Public bodies are hereby authorized to allow remote participation by all members in any meeting of the public body. The requirement that a quorum of the body and the chair be physically present at a specified meeting location, as provided in G. L. c. 30A, § 20(d) and in 940 CMR 29.10(4)(b), is hereby suspended.

(3) A public body that elects to conduct its proceedings under the relief provided in sections (1) or (2) above shall ensure that any party entitled or required to appear before it shall be able to do so through remote means, as if the party were a member of the public body and participating remotely as provided in section (2).

(4) All other provisions of sections 18 to 25 of chapter 30A and the Attorney General's implementing regulations shall otherwise remain unchanged and fully applicable to the activities of public bodies.

This Order is effective immediately and shall remain in effect until rescinded or until the State of Emergency is terminated, whichever happens first.

Given in Boston at 5:40 PM this 12th day of March, two thousand and twenty.

CHARLES D. BAKER
GOVERNOR
Commonwealth of Massachusetts

Town of Arlington, Massachusetts

Discussion & Approval: Shared Streets One Week Pilot

Summary:
Adam W. Chapdelaine, Town Manager
Daniel Amstutz, Senior Transportation Planner

ATTACHMENTS:

	Type	File Name	Description
🗋	Reference Material	Arlington_Shared_Streets_05-11-20_v3.pdf	Reference
🗋	Reference Material	Shared_Streets_Correspondence_J._Costa.pdf	Correspondence from J. Costa

Arlington Shared Streets
Safe Distance and Slow Speeds

Arlington, MA

May 11, 2020

Overview

- Background / Updates
- Why: Space and Speeds
- Quick-Build Shared Streets Concept
- Goals
- Phase 1 Pilot
- Support Needs

Background / Updates

- Met 4/27 - Pivot from Mass Ave to shared streets
- Supported by resident requests to reallocate street space
- Labor and materials support from



THE LAWRENCE & LILLIAN SOLOMON FOUNDATION



Why:
Space and Speeds

- Crowded trails
- Narrow sidewalks
- Increase in people walking and biking
 - *more with warmer weather coming
- People walking in the street for distance
- Less vehicles and increased speeding



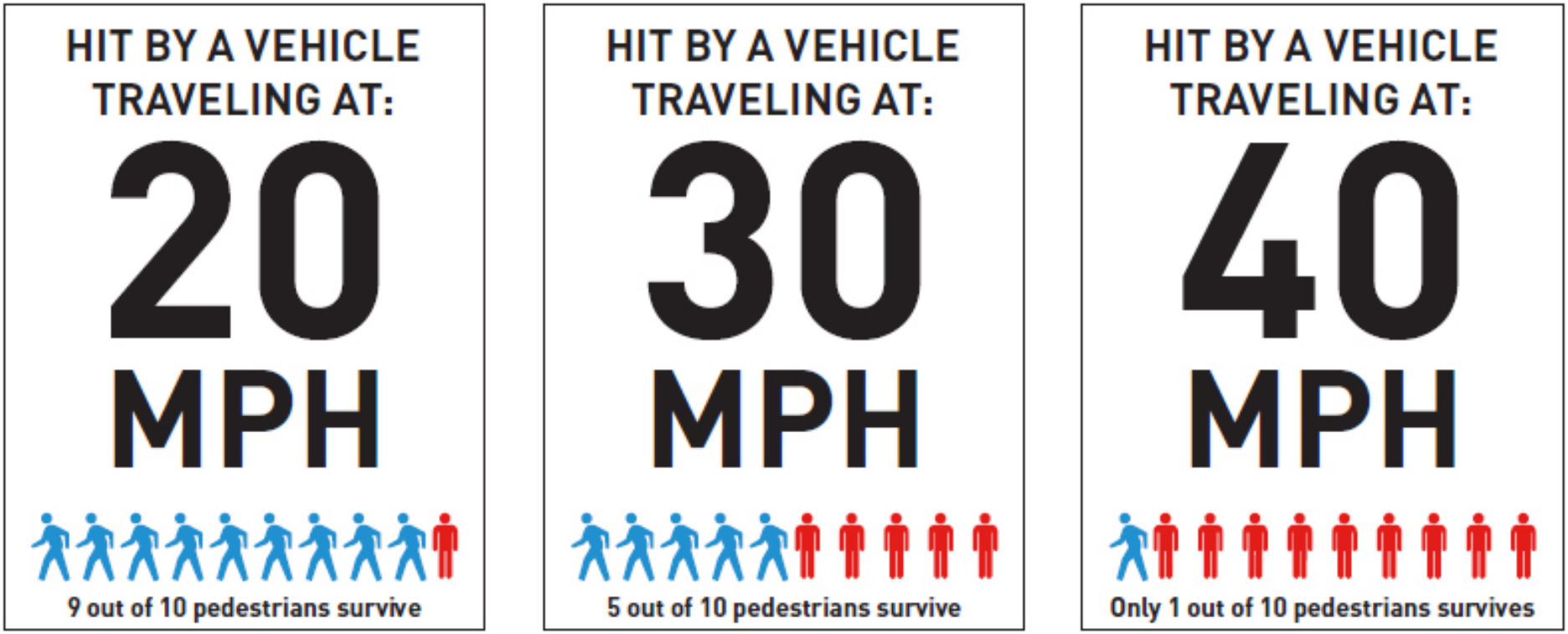


Amid Pandemic, Traffic Fell 50% But Roadway Death Rate Doubled

May 04, 2020 By Zeninjor Enwemeka



Slow Speeds Save Lives



Vehicle Speed comparison to chance of Pedestrian Injury and Fatality
Image credit: https://activetrans.org/blog/slow-down-chicago



Quick-Build Shared Streets Concept

- Local quiet residential streets
- Prioritize active transportation – **people can walk and bike in the street**
- **Low speeds:** 10-20 mph
- **Tools:** barriers, signs, and cones - informational and advisory
- **Close street** to thru vehicle traffic
- **Maintain local and emergency access**
- Maintain existing parking
- Flexible, adaptable, reversible and removable


CALLES LENTAS de OAKLAND
No se permite el tráfico de paso
#OaklandSlowStreets
CITY OF OAKLAND TRAFFIC
OAKLAND SLOW STREETS
NO THROUGH TRAFFIC
#OaklandSlowStreets
CITY OF OAKLAND TRAFFIC
Oakland, CA


Oakland, CA
ROAD CLOSED TO THRU TRAFFIC


Bellevue WA
ROAD CLOSED TO THRU TRAFFIC
BELLEVUE HEALTHY STREETS
PROVIDING ROOM TO MOVE DURING COVID-19
Stay Active & Stay Healthy
KEEP 6 FEET OF DISTANCE
Local Access & Deliveries OK
DRIVE SLOWLY & CAREFULLY
Questions? Comments?
Visit BellevueWA.gov/healthy-streets


Burlington, VT
ROAD CLOSED
LOCAL TRAFFIC ONL

STAY HEALTHY STREETS

Keep it Moving!

"Our family loves the 25th Ave Stay Healthy Street. I've been surprised by how much it's impacted our neighborhood's quality of life. Living on the street gives us access to more space for exercise and fun, which is not a surprise. What has been a wonderful unexpected aspect is seeing how the whole neighborhood uses the space."

– M. Mainland, Central District

Pictured: Father and son enjoying the Stay Healthy Street.



Seattle Department of Transportation

Goals

- Prioritize safety – slow speeds and safe physical distance
- Alleviate crowding in parks, trails, and sidewalks repurposing low volume streets
- Evaluate the impacts and success of a pilot
 - Collect data and surveys on compliance of distancing and speeds





Work to Date

Since last meeting on 4/27 conducted initial:

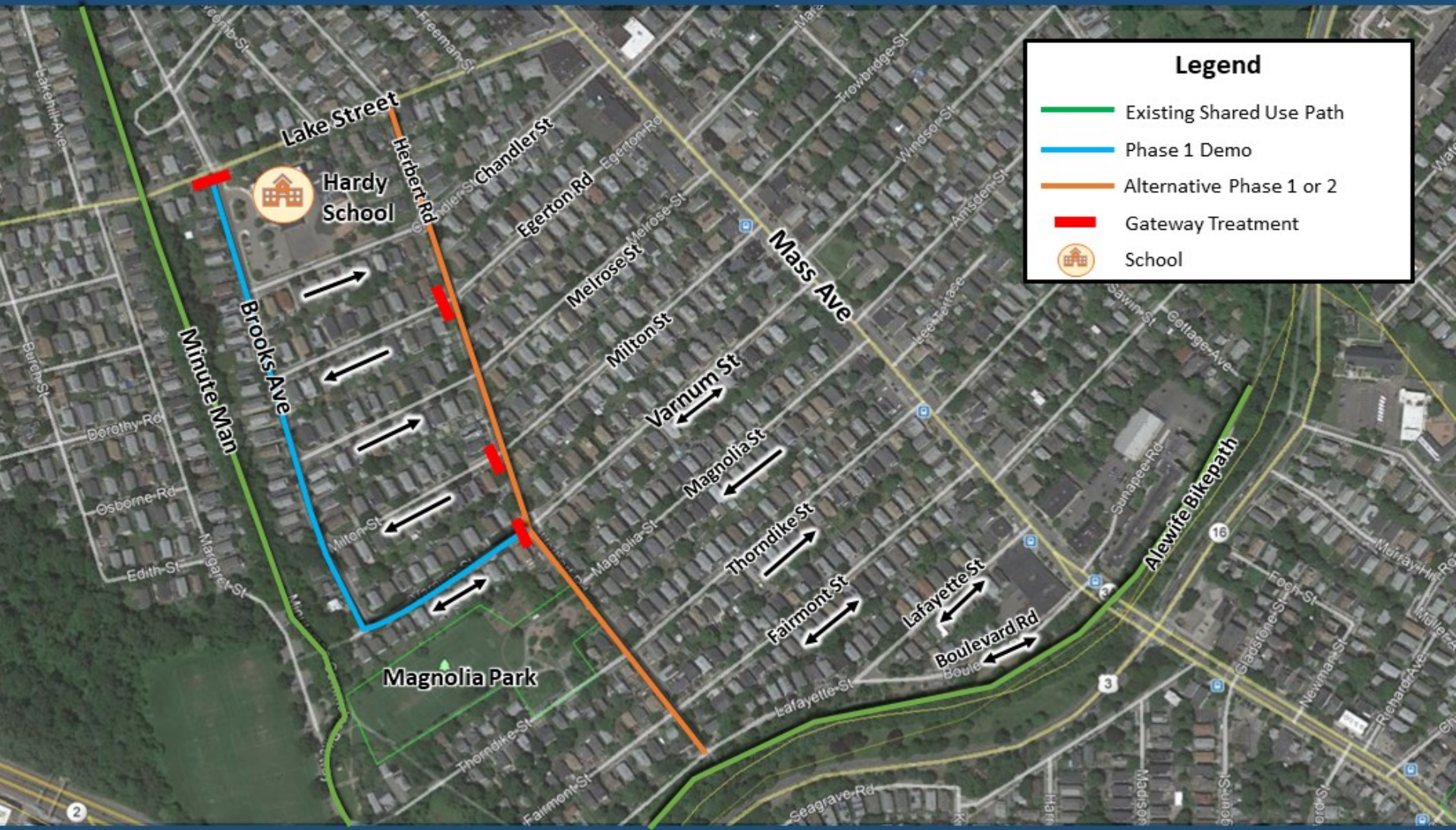
- Outreach to residents / community leaders
- Network Analysis and criteria considerations
- DRAFT pilot locations
- Initial materials inventory
- Logistics and coordination considerations

Phase 1: Demonstration Project

- Demonstrate / test proof of concept
- Put in place for one week
- Evaluation
 - Collect data on operations and safety
 - Assess physical distancing compliance
 - Hear resident feedback and perspectives
 - Determine next steps / improvements

Arlington Shared-Slow Streets
DRAFT Phase 1 Locus Map

N



Not to Scale

5/6/20

Why Brooks Ave?

- Relief valve for Minute Man
- Adjacent to Hardy School - high density of children under 18 years old
- Interest from neighborhood residents
- Serves key recreation needs





May 2, 2020, afternoon, ~70 degrees

Requested support from Town staff

- Support proposal to Select Board
- Material support from different departments
- Delivery and set-up of materials
- Approvals for design and signage
- Assist with concept development, public outreach, data collection and evaluation

Proposed Timeline

	Task	Estimated Timeline: Week of					
		4/27/2020	5/4/2020	5/11/2020	5/18/2020	5/25/2020	6/1/2020
1	Project Initiation						
2	Design						
3	Public Outreach						
4	Implementation				*Selectboard mtg 5/18		
5	Evaluation						
6	Next Steps						TBD

Immediate Next Steps



Sign agreement with Solomon Foundation for technical assistance



Get on Select Board agenda for 5/18



Neighborways and DPCD to contact community members



Neighborways to draft design and determine material needs

Feedback / Discussion



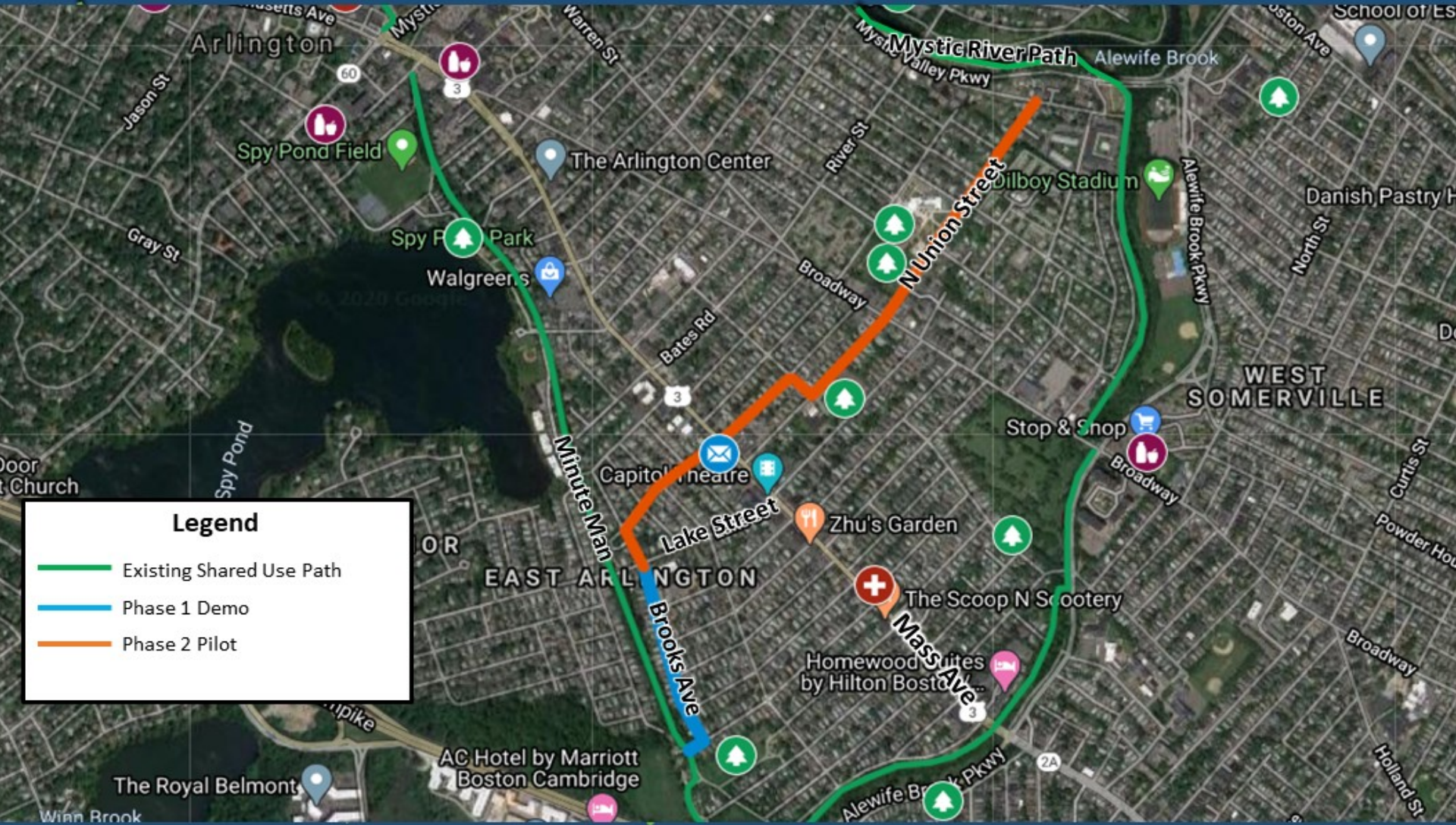
Post-Demonstration

- If successful, determine length and extent of network implementation
- Consider phased approach
- Continue to address need to be outside and access to essential services
- Phase 2 draft ideas
- June-September period

Arlington Shared - Slow Streets

DRAFT Phase 2 Locus Map

N



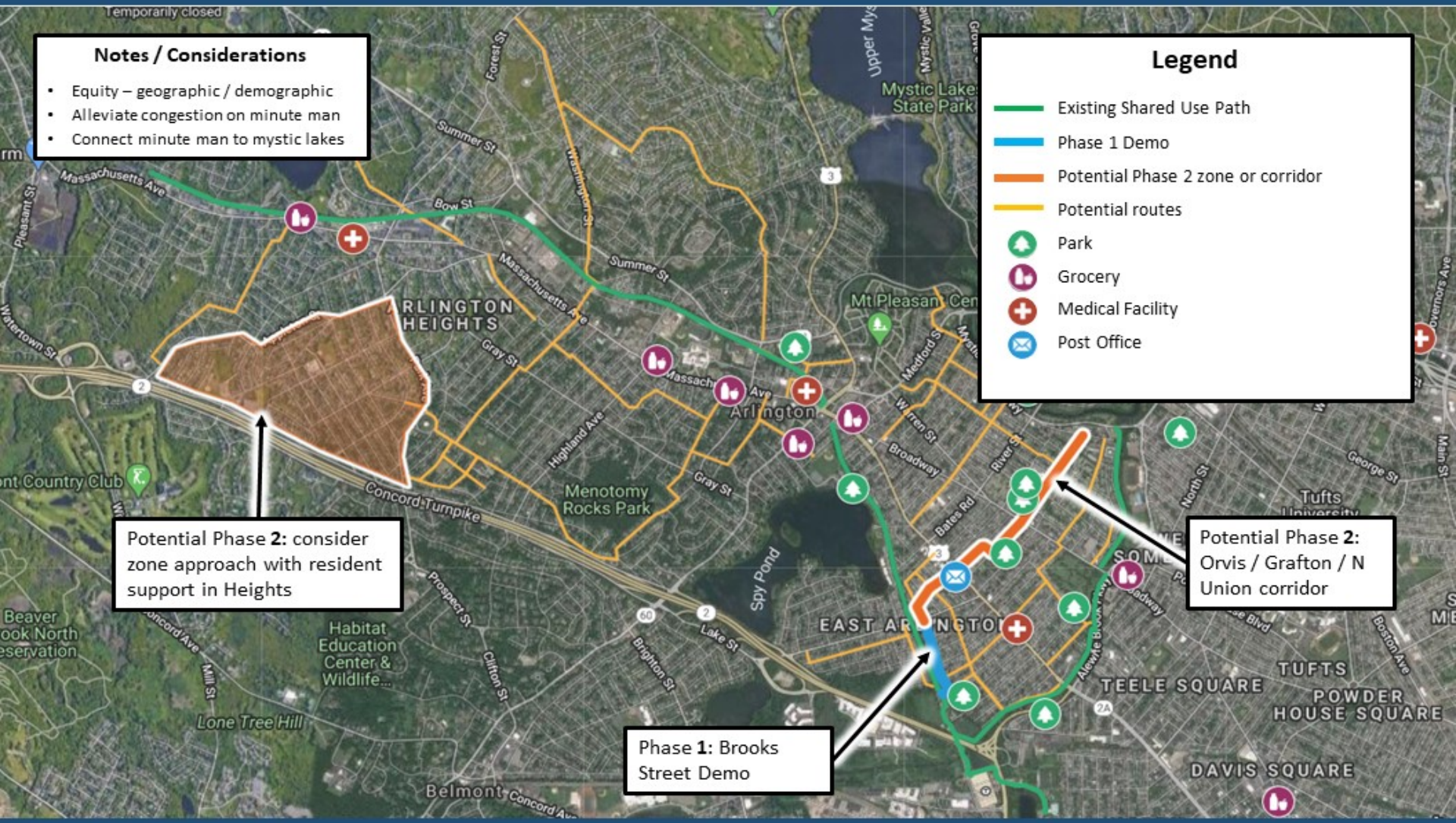
Not to Scale

5/9/20

Arlington Shared - Slow Streets

DRAFT Initial Network Analysis – Potential Candidates

N



5/9/20

To Whom It May Concern:

My name is John Costa and I am a resident of the East Arlington neighborhood where the Shared Streets Pilot is going to take place. This proposed project, in my opinion, will create an unsafe condition for the neighborhood. Not only will cars not obey the signage, but there are construction projects currently going on in the area. There is a giant park (Thorndike/Magnolia) that could be utilized to relieve some of the bike path traffic.

The neighborhood was not given enough notice to truly discuss this project and the Planning Department cannot be trusted with the community response. I personally witnessed a large amount of negative feedback given to the Planning Department regarding the Mass Ave bus lane project and the negative responses were omitted from the presentation given by that office.

Please consider the safety of the neighborhood when making your decision regarding this issue.

Respectfully,

John Costa

Town of Arlington, Massachusetts

Minutes of Meeting: April 27, 2020

ATTACHMENTS:

	Type	File Name	Description
🗋	Reference Material	4.27.2020_draft_minutes.docx	Draft Minutes 4.27.2020

Select Board
Meeting Minutes

Date: April 27, 2020
Time: 7:15 PM
Location: Conducted by Remote Participation

Present: Mrs. Mahon, Chair, Mr. Dunn, Vice Chair, Mr. Curro, Mr. Hurd, Mr. DeCourcey
Also Present: Mr. Chapdelaine, Mr. Heim, Mrs. Costa

1. Executive Order on Remote Participation

Mrs. Mahon opened the meeting by explaining that due to the current State of Emergency, to lower the risk of the spread of COVID-19, the Town has been advised and directed by the Commonwealth to suspend public gatherings, and as such the Governor's orders suspends the requirement of the Open Meeting Law to have all meetings in a public and accessible location. Public bodies may meet entirely remotely as long as the public can access the meeting. The meeting reference materials and how to access the remote meeting are posted on the Town's website. The Chair asked participants that would like to speak, to use their full name rather than a nickname.

Mrs. Mahon wanted to go over some business ground rules for effective and clear conduct of the meeting and to ensure accurate meeting minutes:
The Chair will introduce each speaker on the agenda, after they conclude their remarks; Mrs. Mahon will ask each member of the Board for their remarks or a motion. Please wait until your name is called. Please remember to mute your phone or computer when you are not speaking and to speak clearly. For any response, please wait until the Chair yields to you and state your name before speaking. Anyone wishing to speak to someone must do so through the Chair.

2. Update: Town Meeting and Annual Town Election
 Diane M. Mahon, Chair

Mrs. Mahon stated that Attorney Leone, the Town Moderator, sent out his Declaration of Recess and Continuation of April 27, 2020 Town Meeting for a period up to thirty days in light of the recent COVID-19 pandemic. This included steps that will need to be taken to ensure the safety of all those involved in Town Meeting when it is called. Mrs. Mahon mentioned that there was discussion about some dates in June and possible locations where Town Meeting can be held. The Town Moderator also sent out information to Town Meeting Members stating that there is currently a Bill before the Legislature that would allow for some form of a virtual Town Meeting and that our Moderator is forming a Moderators Committee to see how a virtual Town Meeting could work in Arlington.

Mr. Leone, Town Moderator, mentioned he is working with Attorney Heim and the Redevelopment Board on how to handle the postponement of the articles that won't be coming forward if that is the way the Select Board votes later in this meeting.

Mr. Chapdelaine has been working as a liason between the existing authorities that conduct Town Elections in Arlington which are the Select Board's Office through the Board Administrator as well as the Clerk's Office and the Registrars. Mr. Chapdelaine wanted to provide a brief update on the discussions to date of some of the efforts that are being planned to be put forth and the plan to hear more from residents before coming back to the Board with a final plan at its next meeting. Mr. Chapdelaine stated that the first item that they have been working on is putting together a postcard that can be mailed to every registered voter in Town that will have return postage paid on it that will allow with a name and some other identifying information on to the card along with a signature and then return to the Clerk's Office. That postcard will serve as an application for an early voting by mail ballot and Mr. Chapdelaine feels that this will cut a number of steps out of this process. Mr. Chapdelaine mentioned that Town Counsel has drafted language for the postcard and they are working on putting information in several languages. The entire card will not be in several languages but it there will be something on the card saying "Important please translate this card" in several languages. The Assistant Town Clerk has verified that the company that does printing for elections can fulfill this request and do the mailing. A strategy has been discussed for locating drop boxes across Town for ballot return. Mr. Chapdelaine stated they want to make sure that people don't have to apply a stamp if they don't want to in order to return their ballots. They are looking at a strategy of dispersing them across Town and finding a way to have safe ballot drop at Town Hall available. Mr. Chapdelaine has been having discussions, primarily with Board Administrator Marie Krepelka, on the strategy for polling locations. There are three polling locations that will need to be moved, precincts 7, 9 and 20. Mr. Chapdelaine stated that the Board Administrator is close to finalizing new locations so there should be news on that very soon for the Board to act upon and then postcard notification of those polling location changes. Another thing they are working on is determining whether or not there are enough poll workers who feel comfortable enough to work the polls that day. There are a number of poll workers that are considered members of the vulnerable population to the Coronavirus so they are working on finding out just how much staff will be needed. Mr. Chapdelaine stated they are committing to doing more outreach and advertising than normally would be in Town in terms of signage and notification about the election on June 6th. Mr. Chapdelaine also mentioned that this Wednesday, April 29th at 7:00 p.m. there will be a listening session via Zoom between the League of Women Voters, Envision Arlington, the Election Modernization Committee, and also the Town Departments including Mr. Chapdelaine that are putting the work in to try and make this election work given the circumstances. Mr. Chapdelaine wanted to thank Doug Heim, Town Counsel who has been tremendous in advising what can and cannot be done legally in terms of this election. Mr. Chapdelaine also wanted to thank the Election Modernization Committee, Envision Arlington, the League of Women Voters, the Clerk's Office, and the Select Board's Office who are doing all they can to try to make this happen on June 6th.

Mr. Dunn stated that the progress on the election sounds good and it all sounds really positive because it is appearing that anybody who wants to vote will be able to. Mr. Dunn is curious about Town Meeting and heard about the football field as being a possible location but was wondering if there was any consideration of an indoor location like the rink.
Mr. Leone stated that this is a very preliminary thought process right now and it's going to be based upon a couple of things. One is if the Governor has lifted the ten person restriction and at that point in time will there still have to be six foot zone of safety around everyone. Mr. Leone has thought about the football field because it is outside and there will be lots of fresh air, it is already wired for sound, electricity and ACMI already has the press booth wired for TV so it is fulfilling the goal of public participation and safety. One of Mr. Leone's biggest concerns is the Town Staff that check people in and hand out the clickers and then getting those back. Mr. Leone stated that he would feel better doing it outside than anywhere inside at this point in time given what is known.
Mr. Dunn agreed with all of Mr. Leone's reasons and only was concerned about the weather.
Mr. Leone stated that they would have to have it two days, one with a rain date. Speaking with Attorney Heim and Al Tosti they have discussed having it Wednesday June 15 and if it rains they could have it the following Monday June 24th. Those dates would still be ten days before the end of the year so the budgets would be finalized and able to go forward into the next fiscal year.

Mr. Curro is very encouraged by what the Manager has reported regarding the progress of the election and had some questions for the Moderator regarding Town Meeting. Mr. Curro wondered if Town Meeting could be split up into groups and at each location there would be a "deputy" who would manage the speakers and communicate to the Moderator virtually but in groups so there would not be 252 people plus staff trying to zoom in at once.
Mr. Leone stated that we have never had satellite locations because we have never had to do this before since we have a large auditorium in Town Hall. Mr. Curro had great suggestions but Mr. Leone feels that it would not solve the problem of social distancing and it wouldn't make the communication issue any easier. Mr. Leone stated that the way they are planning right now is that this will be a very quick Town Meeting and the goal is to vote the budget and articles before them and leave before getting sick.

Mr. Hurd is very encouraged with the progress being made and making the election accessible to all residents. Mr. Hurd asked Mr. Chapdelaine to clarify if the postcard is being sent to all registered voters in Town. Mr. Chapdelaine said yes, that would be the plan. Mr. Hurd then asked if in the event that all registered voters asked for an absentee ballot that the Town would have enough ballots to fulfill the requests. Mr. Chapdelaine stated that in conversation with the Assistant Town Clerk it was said that they do have a good amount of ballots and have access to get more if needed. Mr. Hurd stated that in regards to locations, he trusts that the staff will make it safe for all the voters that are going to the polls. Mr. Hurd feels that each location should have one entrance and one exit. Mr. Hurd asked about having some sort of drive by location to vote for those who

do not get an absentee ballot but do not feel comfortable going to the actual polling location.
Mr. Chapdelaine stated that fits in with the idea of drop boxes that was mentioned and would have to consult with Town Counsel but he does not think that the Town would be able to set up a drive through polling place. Mr. Chapdelaine does feel that there could be a drive through drop off where people who have requested early ballots to fill them out and then drop them off. Mr. Chapdelaine does not think polling locations can be open other than on Election Day.
Mr. Heim confirmed that is correct. The Board will need to set its polling locations if it is going to deviate from the normal locations. Mr. Heim also stated that there would be some complications if they were to attempt some sort of drive through polling. Mr. Heim wanted to add to something Mr. Hurd had said previously in regards to having enough ballots. If the Town were to run out of mail-in ballots the law says that absentee ballots work the same way so it does not matter if someone receives a ballot marked absentee or early voting mail-in as long as they have the same candidates and information on them which they will. The ballots function the exact same way so if the Town ran out of one type of ballot, its okay for the purposes of this election only to interchange them.

Mr. DeCourcey shares the other Board Members comments and stated there is still a lot to be done and thinks they're on a good track. Mr. DeCourcey had spoken to residents concerned about not being able to print out an absentee application or an early ballot application and the postcard will address this concern that some people may have. Mr. DeCourcey wanted to make people aware that if you previously applied for an absentee ballot to be sent to a different address than you are at currently then you should clarify that with the Town Clerk's Office because you don't want your ballot going to the wrong address. Mr. DeCourcey feels that we should be encouraging as many people as possible to vote by mail but also added that the ballots need to be returned by Election Day.

Mr. Leone added that they are going to make the determination to go forward as long as it is safe to do so. When they do have the meeting there will be three, four or five items as well as a big consent agenda.

Mrs. Mahon asked Mr. Chapdelaine to say the time and date of the virtual forum which is Wednesday, April 29 at 7:00 p.m.

CONSENT AGENDA

3. Minutes of Meetings: April 13, 2020

4. Reappointment: Arlington Historic District Commissions, At-Large Member
 Charles Barry (term to expire 6/30/2023)

5. Request: Contractor/Drainlayer License
 A.T. Paving LLC, 43 Vivien Street, Revere, MA

6. Request: Contractor/Drainlayer License
 G. W. Gately, Inc., 1 Summit Street, Woburn, MA

Mr. Curro moved approval subject to all conditions as set forth.
A roll call vote was taken on the motion by Mr. Heim.

Mr. DeCourcey:	yes	
Mr. Hurd:	yes	
Mr. Curro:	yes	
Mr. Dunn:	yes	
Mrs. Mahon:	yes	SO VOTED (5-0)

APPOINTMENTS

7. Arlington Historic District Commissions, Jason/Gray District
 Dr. Alison Johnson (term to expire 6/30/2023)

Dr. Johnson, 24 Jason Street, introduced herself to the Board. She is a Historian by training and profession. Dr. Johnson has done various types of volunteer work on historic properties in the past and is something she is interested in.
Mr. Dunn moved approval.
A roll call vote was taken on the motion by Mr. Heim.

Mr. DeCourcey:	yes	
Mr. Hurd:	yes	
Mr. Curro:	yes	
Mr. Dunn:	yes	
Mrs. Mahon:	yes	SO VOTED (5-0)

8. Arlington Historic District Commissions, Broadway District
 Beth Melofchik (term to expire 6/30/2023)

Ms. Melofchik, 20 Russell Street, introduced herself to the Board. Ms. Melofchik's experience previously traveling abroad and administering foreign exchange programs has given her an appreciation for history and for living in cities that were able to preserve architecture from many eras and understands the importance of that to the communities.
Mr. Curro moved approval.
A roll call vote was taken on the motion by Mr. Heim.

Mr. DeCourcey:	yes	
Mr. Hurd:	yes	
Mr. Curro:	yes	
Mr. Dunn:	yes	
Mrs. Mahon:	yes	SO VOTED (5-0)

LICENSES & PERMITS

9. For Approval: Food Vendor License
 Anthony's East Side Deli, 159 Massachusetts Avenue, Sarbjit Saini

Mr. Hurd left the meeting, recusing himself due to conflict of interest.

Mr. Saini stated that he is hoping to buy Anthony's East Side Deli and he has owned some previous businesses in Belmont and Lexington.
Mr. Dunn moved approval subject to all conditions from departments.
A roll call vote was taken on the motion by Mr. Heim.
Mr. DeCourcey: yes
Mr. Curro: yes
Mr. Dunn: yes
Mrs. Mahon: yes SO VOTED (4-0)

Mr. Hurd returned to the meeting.
Mr. Heim wanted to clarify that in normal practice when Board members have a conflict of interest and they recuse themselves they would physically leave the room. The two key provisions are that they can't be heard and they can't be seen. While people may see that Mr. Hurd is an attendee of the meeting the instruction was for him to mute himself and to shut off his camera.

TRAFFIC RULES & ORDERS / OTHER BUSINESS

10. For Approval: Proposal for Community Block Grant Subcommittee Funding
Jo Anne Preston, Town Meeting Member Precinct 9

Mrs. Mahon stated that this is something that came up before the Subcommittee and JoAnne Preston had provided a suggestion that was received the day of the CDBG Subcommittee meeting. Upon further discussion, this was initially going to be under Correspondence Received but then as there was more discussion with Mr. Dunn and Mr. Chapdelaine it appeared that there had already been some work done on this so instead of just receiving it the Board could get it moving into the process.
Mr. Dunn stated that there was unexpected money received through the CARES Act and the Planning Department had made recommendations on how to allocate it which the CDBG Subcommittee had considered. Ms. Preston brought up the safety on Chestnut Street near St. Agnes Church and suggested the money be used for that. Mr. Dunn feels the suggestion was accurate, timely and helpful but is wondering if the people that should be looking at this is the Transportation Advisory Committee (TAC). TAC has many years of experience with this kind of work.
Ms. Preston stated she had an important update on this. Ms. Preston has been working on this with the Police Chief and the Traffic Division of the Police Department for the last two months. One thing that was considered was traffic calming and when seeing that there were some funds available Ms. Preston wrote this proposal. Ms. Preston feels that the proposal needs to be reworked before it gets sent somewhere. Ms. Preston had a discussion with Wayne Chounard, head of Engineering, and they came to the conclusion that the pedestrian traffic patterns need to be studied and included in the proposal. Ms. Preston also suggested that there be more extensive community input. This study cannot take place until the threat of the Coronavirus is over because nobody's on the street and not many people are driving cars. Ms. Preston also discussed the problem with a signalized intersection at Mystic Street and Chestnut Street. If the crosswalk at Chestnut Terrace was removed people would have difficulty

walking down the street and using the other option. Ms. Preston's suggestion is to wait to act on this until they study the pedestrian patterns and rework this proposal.
Mrs. Mahon stated that there were concerns expressed at the CDBG Subcommittee meeting that this is a really important issue and it shouldn't be delayed. There have been a couple of options that have been drawn up by the Town Engineering Department. Mrs. Mahon feels that what needs to happen next is that the members of the Transportation Advisory Committee take the two options from the Engineering Department and apply their expertise.
Mr. Chapdelaine also agreed that having TAC look at this issue and apply their expertise is the best option. Mr. Chapdelaine also agrees with Ms. Preston that right now is not the best time to be gathering data for such study due to the current circumstances. Mr. Chapdelaine does not see the harm in referring it to TAC so they could scope out the work that should be done in terms of data gathering and testing what's on the ground and then when they see the time is fit to do the data gathering they can enable that and move as quickly as possible.
Mr. Dunn agrees with Ms. Preston on the importance of community input and pedestrian study and survey. Mr. Dunn feels that TAC is the right group for this.
Mr. Hurd stated that giving it to TAC is the appropriate venue and they will decide when the best time to start the traffic counts will be.

Mr. Dunn moved to refer the Chestnut Street intersection to TAC for consideration and to report back to the Board. Mr. Dunn also wanted to send it in with a note recognizing that there was a fatality there this winter.
A roll call vote was taken on the motion by Mr. Heim.

Mr. DeCourcey:	yes	
Mr. Hurd:	yes	
Mr. Curro:	yes	
Mr. Dunn:	yes	
Mrs. Mahon:	yes	SO VOTED (5-0)

11. For Approval: Acceptance of Bequest from the Marian D.H. Sylvester Trust for the Mount Pleasant Cemetery
 Phyllis L. Marshall, Town Treasurer

Ms. Marshall, Town Treasurer, stated that the Mount Pleasant Cemetery is one of the recipients of a bequest from the Trust of Marian D.H. Sylvester to preserve the portion of the cemetery known as the Paul Francesco Dodge Lot. The amount of the bequest is about $55,000 for maintenance of that area. Ms. Marshall stated that because the last decedent passed without family members, the trust has requested a new trust to disperse the funds and the Town has been asked to sign off on that. The Town's share is about 1% of the estate.
Mr. Curro stated that the Town is very grateful to the individuals who left this to the Town.
Mr. Heim wanted to clarify that as a part of this acceptance, a vote is being taken to support the appointment of Deborah Lincoln as the new trustee. The Town only represents 1% of this trust but the law requires there be a unanimous appointment of the new trustee.

Mr. Hurd wanted to clarify through the Chair to Town Counsel that once this new trust is being established, the bequest will be dispersed to the Town free of trust. Mr. Heim confirmed that is correct.
Mr. Curro moved approval for the receipt of the funds and supports the appointment of Deborah Lincoln as trustee.
A roll call vote was taken on the motion by Mr. Heim.
Mr. DeCourcey: yes
Mr. Hurd: yes
Mr. Curro: yes
Mr. Dunn: yes
Mrs. Mahon: yes SO VOTED (5-0)

12. Acceptance of Gift for AFD and APD: Meal Gift Cards from Anonymous Donor
Douglas W. Heim, Town Counsel

Mr. Heim stated the Arlington Fire Department and the Arlington Police Department received an anonymous donation of approximately $7,550 worth of gift cards to local Arlington restaurants. Mr. Heim contacted the State Ethics Commission and they have an advisory 19-1 which talks about gifts to public agencies. Mr. Heim stated that because the gifts are anonymous and to a public agency they have to be approved by the Select Board. Mr. Heim requests the Select Board to vote to accept this donation to Arlington Police Department and other first responders and to direct those departments to utilize these gift cards evenly among on duty staff for use in buying meals for same.
Mr. Curro wanted to thank the anonymous donor and spoke about how hard the first responders are working right now.
Mr. DeCourcey also wanted to thank the anonymous donor and continues to recognize the great work of our first responders in Town.
Mr. Dunn stated that it is a gift to both sides and it is most welcome and thanked the donor.
Mr. Hurd thanked the donor and said it's amazing to see how generous people in this Town are and thanked the first responders who are doing so much for the community right now.
Mr. Curro moved to accept this gift.
A roll call vote was taken on the motion by Mr. Heim.
Mr. DeCourcey: yes
Mr. Hurd: yes
Mr. Curro: yes
Mr. Dunn: yes
Mrs. Mahon: yes SO VOTED (5-0)

13. For Approval: Removal of Trees on Front Green @ Arlington High School
Adam W. Chapdelaine, Town Manager

Mr. Chapdelaine stated that that Board has a letter before them from the Chair of the High School Building Committee, Jeff Thielman, requesting the Board's authorization to remove a number of trees in front of Arlington High School. There was a Tree hearing held back in February and there were three letters objecting to the removal of the trees. Mr. Chapdelaine stated that at the hearing there was a very detailed comprehensive

presentation given by the landscape architect working on this project in regards to the trees planning to be removed as well as a planting plan for the remainder of the site. What Mr. Chapdelaine is asking for is the Board's permission to remove these trees. Mr. Chapdelaine mentioned that joining the meeting is Daniel Norman from the project's landscape architect firm to provide a little more detail and answer any questions the Board may have about this project.

Daniel Norman introduced himself as being from the firm Crosby Schlessinger Smallridge.

Mr. Chapdelaine asked Mr. Norman to speak about the replanting plan and how they are trying to make up for the caliper loss for these removals.

Mr. Norman stated that as part of the early bid package to get the new High School going, the front green is where a number of trees will be removed; about 45 healthy trees in total in that area as well as 15 additional trees both behind the CVS property and the Stop and Shop property. Mr. Norman stated that they are still in the construction document phase of the project, 60% of the way through. Currently, they are showing an addition of 200 new trees to be planted at Arlington High School. A majority of the new trees will be replacing the trees that are removed in the front lawn area but there are still a number of trees that will be planted throughout the property.

Mrs. Mahon stated that if correspondence is sent to another committee or board that it is not automatically sent to the Select Board. Mrs. Mahon wanted to remind citizens that if they would like they would need to send correspondence to the Select Board directly in order for them to be in receipt of said correspondence.

Susan Stamps, 39 Grafton Street and Tree Committee Member, stated she is not speaking for the Tree Committee but wanted to remind everyone that the Town adopted a policy and the Tree Warden needs to be consulted throughout this project. Ms. Stamps would appreciate that the tree planting team consult with the Tree Warden regarding the species to be planted and various other characteristics of the trees and planting and protecting other trees that are on the site from any damage. Ms. Stamps also wanted to mention the Town adopted a policy that watering plans be in place for every Town project involving trees and that would be part of contractual operation related to the installment of the trees.

Mr. Dunn moved approval of removal of the trees as requested by the High School Building Committee.

A roll call vote was taken on the motion by Mr. Heim.

Mr. DeCourcey: yes
Mr. Hurd: yes
Mr. Curro: yes
Mr. Dunn: yes
Mrs. Mahon: yes SO VOTED (5-0)

WARRANT ARTICLE HEARINGS

14. For Approval:
 Article 50 Endorsement of CDBG Application

Mrs. Mahon explained that tonight's endorsement of CDBG is the initial $1.1 million, before the Coronavirus and the CARES Act.

Mr. Chapdelaine explained they are looking for the Board's endorsement of the CDBG Application and that it really has two parts. It is favorable action on the FY 21 budget as well as favorable action on the report to Town Meeting. The combination of those two actions fulfills all of the federal requirements as well as putting forward the budget for next year. Mr. Chapdelaine stated that this is the standard process that we go through every year, this year we have gone through an enhanced process. There are three residents who serve on a committee along with Chair Mahon and Vice Chair Dunn, Mr. Chapdelaine, and Jenny Raitt, the Director of Planning and Community Development. The Committee goes through every application and scores them by a metric that has been put together by the CDBG Administrator, and after the scoring they go through a long decision making process of what will be approved and what the funding amounts will be from all of those categories. Mr. Chapdelaine stated there are some other materials provided just to inform the Board about the CARES funding as well as some of the reallocated funding that was discussed at the last CDBG meeting which will be brought back to the Board at a later meeting.

Mr. Dunn wanted to mention the criteria used when ranking these and they are community need, resources and capacity, how much they encourage partnerships with other organizations, what the cost benefit is, whether or not they leverage funds from other sources, whether or not they're self-sufficient and whether they're new or they're repetition of an existing program. Mr. Dunn stated they grade them and at the end they rank them all and see where they all turned out in the ranking. Mr. Dunn received correspondence that the CDBG Subcommittee hadn't considered the Whittemore Park money and would actually disagree with the author of that correspondence. Mr. Dunn wanted to ensure the public that it had been discussed at the Subcommittee meeting in late March. Mr. Dunn wanted to remind the Board that this vote has six voters because the Town Manager is also an allocator the CDBG money.

Beth Melofchik, 20 Russell Street and Town Meeting Member, mentioned that she did attend both Subcommittee meetings. Ms. Melofchik submitted a letter to Ms. Zwirko in the Planning Department as instructed and was shocked that it was not reflected in the documents before the Board tonight on Novus Agenda. Ms. Melofchik was surprised that the merits of the Whittemore Park application for the $125,000 of HUD CDBG monies was not discussed before the public.

Mr. Dunn stated that while he agrees that they did not go into the details of the plan, they did score that project just like they score all of the other ones.

Mrs. Mahon explained that there is a matrix of six different categories, three different boxes you could put them in and then they all would come in and share what they have and discuss each members comments and why they graded it a certain way.

Mr. Chapdelaine wanted to mention that the granite amphitheater steps that Ms. Melofchik referred to is not part of phase two; it is part of phase three.

Mr. DeCourcey wanted to thank the Subcommittee for their work on this and bringing it to the Board.

Mr. Dunn moved approval of the recommendations for the CDBG funding.

A roll call vote was taken on the motion by Mr. Heim.

Mr. DeCourcey: yes
Mr. Hurd: yes
Mr. Curro: yes

Mr. Dunn: yes
Mrs. Mahon: yes
Mr. Chapdelaine: yes SO VOTED (6-0)

VOTES & COMMENTS

Discussion and Vote: Town Meeting and Warrant Article Votes & Comments in COVID-19 Emergency, including Votes or Re-Votes on Articles 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 78, 79, 80, 81, 82, and 83

Please note that the Board does not intend to hold substantive hearings on remaining articles at this time. The Select Board instead will consider a vote to recommend no action on all non-financial warrant articles including articles previously heard and refile them as Select Board articles for a future Special Town Meeting. The vote being considered represents the Board's intent to hold future public hearings on all articles for eventual discussion at that future Town Meeting.
Douglas W. Heim, Town Counsel
Adam W. Chapdelaine, Town Manager

Mrs. Mahon stated that although some latitude has been given under the law the budgets still need to be addressed. Mrs. Mahon stated what they plan on doing is voting on the budget warrant articles that will encapsulate the anticipated June Town Meeting. Mrs. Mahon had discussions with Mr. Chapdelaine, Mr. Leone, Mr. Tosti and Mr. Heim regarding the votes that need to be taken on warrant articles so that they do not have to wait a whole year to come back to Town Meeting. Mrs. Mahon stated that a vote of no action would be the proper vote for those remaining articles so that when there is a Special Town Meeting in the fall, as they are anticipating, the articles can be brought up at that time.
Mr. Heim stated that the basic concept is that they do not want to prejudice anybody from bringing their warrant articles before a full Town Meeting once they feel like a full Town Meeting can be held safely. Mr. Heim added that whether Town Meeting is held on the football field distanced or held virtually, the central concept would be to have only the essential financial business go before Town Meeting and to take either a no action vote or another type of vote relative to zoning articles that would make sure everybody's articles are understood to just be on hold until the next Special Town Meeting or a non-emergency situation Town Meeting. Mr. Heim stated that there is an update with respect to zoning articles. The Mass Moderators Association recommended that zoning articles be referred to a committee rather than take a no action vote so there would not be the complexity of dealing with the assurance that the Planning Board won't block things from going to Town Meeting for two years. Any article before the Select Board which has a no action vote taken on it, the same article can be brought back to Select Board immediately at the next Special Town Meeting. Mr. Heim stated that the Select Board could vote to place all warrant articles before the Select Board this year on the next Town Warrant to make sure it is understood that this is basically so there can be an abbreviated Town Meeting where only the articles necessary for the financial operation of the Town are addressed.

Mr. Chapdelaine added that one financial piece was covered tonight with the CDBG vote, the next meeting will be bringing back the revolving fund votes as well as the Parking Benefit District Expenditure vote and that should encapsulate the financial votes that the Board is taking.
Mr. Hurd stated that they do not take this vote lightly. A lot of people have put time and effort into these warrant articles and they look forward to having a little more time to discuss them.
Mr. DeCourcey asked Mr. Heim about any articles that they had previously voted if there will be any comments or if it will just be left as no action.
Mr. Heim added that the Board is taking a no action vote even on the articles which were previously approved. Basically, unless it is a finance article, the Board is voting no action so there can be an abbreviated Town Meeting and retroactively voting no action even on those articles that the Board had supported so that Town Meeting will hopefully be on or two consent agenda style votes of budget, capital expenditures, something of that nature.
Mrs. Mahon added that within these warrant articles are six resolutions that are coming before the Board as Warrant Articles. Also, the Town Moderator did have contact with the ten registered voter articles including the resolutions explaining the process and if they had any questions.
Mr. Heim thanked the Moderator for reaching out to Town Meeting Members and specifically article proponents to explain the current situation.
Mr. Dunn moved to recommend no action on Articles 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 78, 79, 80, 81, 82, and 83.
A roll call vote was taken on the motion by Mr. Heim.

Mr. DeCourcey:	yes	
Mr. Hurd:	yes	
Mr. Curro:	yes	
Mr. Dunn:	yes	
Mrs. Mahon:	yes	SO VOTED (5-0)

CORRESPONDENCE RECEIVED

15. Request Temporary Amendment to Traffic Rules and Orders / Mandatory Sidewalk Use
 Brian Ristuccia, 73 Rhinecliff Street

Mr. Chapdelaine wanted to inform Brian and the Board that they are actively working on this request. Mr. Chapdelaine had a zoom call with Mike Rademacher, Dan Amstutz from the Planning Department, Chief Flaherty and Jenny Raitt from the Planning Department to talk about this request. They are looking at potential for both lane reduction and temporary sidewalk expansion on Mass Ave as well as the closure/shared street designation on neighborhood throughout Town. Mr. Chapdelaine stated they are trying to figure out what the safest and least resource intensive approach will be and also what the right way to get public feedback on this before implementing it.
Mr. Curro moved receipt of Correspondence Received.
A roll call vote was taken on the motion by Mr. Heim.

Mr. DeCourcey: yes
Mr. Hurd: yes
Mr. Curro: yes
Mr. Dunn: yes
Mrs. Mahon: yes SO VOTED (5-0)

NEW BUSINESS

Mr. Heim stated that in addition to thanking those who are working so hard he added that in order to set our polling locations a notice will need to go out on or before May 15. As the polling locations are finalized through the Board Office, it may be necessary to convene the Board outside of its regularly scheduled meeting and wanted to make the Board aware.

Mr. Chapdelaine had a few brief updates on the Town's COVID-19 response. Mr. Chapdelaine continues to meet daily via zoom with the leadership team on the response locally as well as their understanding of what's happening regionally. Today there was an update where the Town has put in place a face covering advisory and they are strongly advising those who leave their homes to wear a face covering to protect themselves and others. The Board of Health is expected to vote to make it a mandatory face covering policy. Mr. Chapdelaine also wanted to mention that there is much conversation and the regional and state level about safe reopening at some point which will likely be a phased reopening and Mr. Chapdelaine has been asked to chair the advisory group of other Town Managers and Mayors to the Governor and Lieutenant Governor. Mr. Chapdelaine is also part of another working group with another group of Mayors looking at a set of guiding principles that they'd like to adopt regionally in terms of reopening and hopefully be in line with the state. Mr. Chapdelaine stated that on Thursday at 2:00 p.m. there will be another virtual Town Forum regarding the Town's public health and public safety response. Last week there were about 140 participants and ran out of time in the hour they had allocated so they have now allocated an hour and a half to try to get to as many questions as possible from Town residents.

Mr. DeCourcey mentioned he saw the Town Forum that the Town Manager ran last week and wanted to thank the Town Manager, Director of Health and Human Services Christine Bongiorno, Chief Flaherty and Chief Kelley and stated it was a very informative hour. Mr. DeCourcey stated that all the things between the Health Department, Police and Fire have to do to adjust and provide services safely is remarkable. Mr. DeCourcey wanted to recognize and thank the Postal Workers in Town for their service and mentioned they will be a big part in this Town regarding the Election and voting by mail.

Mr. Dunn thanked all the people who are working so hard to keep us safe.

Mr. Hurd thanked the Town Staff, all of the medical professionals in Town, and mentioned as the weather gets nicer there may be more temptation to relax on some of the social distancing mechanisms that the Town has put in place. Mr. Hurd is reminding

residents that this is the peak and hopes everyone will make the right decision so the Town can start to go through a phase of opening. Mr. Hurd added that he would also like to thank the delegation at the State House, Senator Friedman, Representative Rogers and Representative Garballey for their work regarding virtual notarizations. The Governor signed to allow real estate closings to happen virtually.

Mr. Curro also tuned into the Town Forum and stated it demonstrated how strong the Town is because the Town's Public Safety and Public Health Officials work so closely together. Mr. Curro felt that watching them in the Forum you could see the level of cooperation between all of them. Mr. Curro also noted that the Police and Fire Chiefs although they've been in public safety for a long time they are new in the tops of their Departments and they're taking on this challenge and rising to it. Mr. Curro stated with great sadness the passing of John Flood and mentioned his work at the Senior Center and his work for the Town. John Flood was also a member of the Select Tones and was always the one singing the National Anthem or God Bless America at events.

Mrs. Mahon shared her condolences to Representative Garballey on the passing of his Dad, Jim. There are other Arlington residents that unfortunately have passed, some COVID-19 related and some not. Mrs. Mahon added how Arlington residents, businesses and others are really coming together. Mrs. Mahon urged residents to check the Town Website for the Coronavirus updates. Mrs. Mahon wanted to mention again that there is a process concerning Select Board Agendas and wants everyone to follow that process starting with the Select Board Office. Mrs. Mahon received an email from Elizabeth Dray and called her back regarding requests for agenda items and explained the process for requesting agenda items. One of her requests was already an agenda item for this meeting. The other request Mrs. Mahon told Ms. Dray she would pass along to her colleagues which was that she envisioned that the virtual Town Forums would feature an individual member of the Select Board and that the meeting would be covered by ACMI and residents could call in. Mrs. Mahon mentioned to Ms. Dray that she felt that was not the purpose of the Town Forums. Mrs. Mahon has gotten questions from residents asking where they can donate money to and has been referring them to the Council on Aging, AYCC, and the ARCS Chapter of RIM. Mrs. Mahon asked the Town Manager if there is any way of donating money to people who need help to pay rent or bills.
Mr. Chapdelaine stated that the Arlington COVID-19 Relief Fund should be launched in the next two days to fill the exact purpose Mrs. Mahon just described. They are putting finishing touches to enable people to donate online.

Mr. Curro moved to adjourn at 9:01p.m.
A roll call vote was taken on the motion by Mr. Heim.
Mr. DeCourcey: yes
Mr. Hurd: yes
Mr. Curro: yes
Mr. Dunn: yes
Mrs. Mahon: yes SO VOTED (5-0)
Next Scheduled Meeting of Select Board May 4, 2020

A true record attest

Lauren Costa
Principal Clerk

4/27/2020

Agenda Item	Document Used
1	Executive Order on Remote Participation
2	
3	Draft Minutes 4.13.2020
4	Recommendation from AHDC Chair C. Barry Meeting Notice
5	Engineering Memo Application
6	Engineering Memo Application
7	Recommendation from AHDC Chair A. Johnson Reference
8	Recommendation from AHDC Chair B. Melofchik Reference
9	Inspection Reports Food Vendor Application
10	J. Preston Reference
11	Letter from P. Marshall Letter to Mount Pleasant Cemetery Mount Pleasant Appointment Copy of Trust
12	
13	AHSBC Trees Reference
14	Memo from Planning Department CDBG Draft Report to Town Meeting FY21 Budget Spreadsheet CARES Letter CDBG Subcommittee Minutes 04152020
Votes & Comments	Memo from Town Counsel
15	4.9.20 Ristuccia C.R. 4.22.2020 Ristuccia C.R.

Town of Arlington, Massachusetts

For Approval: AHS Class of 2020 Banners

Summary:
Joanna Begin, AHS Graduation Committee

ATTACHMENTS:

	Type	File Name	Description
🗋	Reference Material	Banner_Request_AHS_Class_of_2020.pdf	Banner Request
🗋	Reference Material	Banner_Schedule.pdf	Banner Schedule

May 5, 2020

Dear Arlington Select Board,

The Arlington High School Graduation Committee respectfully requests your permission to place banners along the poles on Mass Ave. on the poles from Arlington Center to East Arlington beginning as soon as the banners are in from our vendor until June 21st.

This year our seniors at Arlington High School are unable to enjoy all the festivities surrounding their final year in the Arlington Public Schools. We are hoping the banners which will adorn a photo of each Senior at AHS will show these students how much they are truly loved in the Arlington Community. We are attempting any way to give these seniors a little something special in place of any normal activities that they should all be experiencing.

We look forward to working with you on this and celebrating our AHS Seniors!!

Sincerely,

Joanna Begin
AHS Graduation Committee

BANNER SCHEDULE 2020

Month	Event	Event	Event	Event
January				
February	Human Rights Commission Black History Month 16 East Arl. & Arl. Center			
March				
April	APA Youth Initiative Banners 12			
May	APA Youth Initiative Banners 12			
June	APA Youth Initiative Banners 12			
July				
August				
September				
October				
November				
December				

Town of Arlington, Massachusetts

For Approval: Keno to Go

Summary:
Giles Wine & Spirits, 137-137A Massachusetts Avenue

ATTACHMENTS:

	Type	File Name	Description
🗋	Reference Material	Giles_Keno.pdf	Reference

THE LOTTERY Massachusetts State Lottery Commission

SELECT
ARLINGTON, MASS.
2020 MAY -4 AM 9:40

DEBORAH B. GOLDBERG
Treasurer and Receiver General

MICHAEL R. SWEENEY
Executive Director

April 22, 2020

Arlington Board of Selectmen
730 Mass Avenue
Arlington, MA02476

Dear Sir/Madam:

The Massachusetts State Lottery is offering existing, non-pouring agents our KENO TO GO game, a transaction which is identical to the already existing on-line games, such as Megabucks and Mass Cash. At this time, the Lottery is not providing agents with a KENO monitor as part of this program.

In accordance with M.G.L. c 10, section 27A, as amended, you are hereby notified that the following existing agent(s) in your community will be eligible to sell the KENO TO GO product:

GILES WINE & SPIRITS
137-137A MASSACHUSETTS AVENUE
ARLINGTON, MA 02474

If you object to these agent(s) selling KENO TO GO, you must do so, in writing, within twenty-one (21) days of receipt of this letter. Please address your written objection to Gregory Polin, General Counsel, Legal Department, Massachusetts State Lottery Commission (MSLC), 150 Mt. Vernon Street, Dorchester, MA 02125-3575. Should you have any questions regarding this program or any other issue relative to the Lottery, please call me at 781-849-5555. I look forward to working with you as the Lottery continues its' efforts to support the 351 cities and towns of the Commonwealth.

Sincerely,

Michael R. Sweeney
Executive Director
7019 0700 0000 7913 6181
100542 - GILES WINE & SPIRITS

Town of Arlington, Massachusetts

Appointment of New Election Worker: (1) Savannah Curro, 21 Millett Street, U, Pct.15

ATTACHMENTS:

	Type	File Name	Description
🗋	Reference Material	Election_Worker_Master_Record_.pdf	Master Record

ELECTION WORKER'S MASTER RECORD

Date: 5/14/20

Check One: ✓ New Employee

_____ Change to Existing Employee

Vendor #		Position	INSPECTOR
Name:	SAVANNAH CURRO	Democrat	
Address:	21 MILLETT STREET	Republican	
		Unenrolled	✓
Zip Code	02474	Precinct	15
Alpha/ Last Name		Phone #	

Position Codes:

10 – Warden
20 – Deputy Warden
30 – Inspector
40 – Deputy Inspector
50 – Clerk
60 – Deputy Clerk
70 – Teller
80 – Substitute
90 – Custodian

Town of Arlington, Massachusetts

Proposed Tree Removal: Massachusetts Ave Sidewalk Project

Summary:
Michael Rademacher, Director of Public Works

ATTACHMENTS:

	Type	File Name	Description
🗋	Reference Material	Selectboard_tree_request_for_Mass_Ave_and_Lake_Street.pdf	Reference

PUBLIC WORKS DEPARTMENT
TOWN OF ARLINGTON
51 Grove Street, Arlington, Massachusetts 02476
Phone: (781) 316-3104 Fax: (781) 316-3281

Memo to: Select Board

From: Mike Rademacher, DPW Director

Date: May 15, 2020

Subject: Tree Removal Request
Mass Ave Center Sidewalk Project and Minuteman Bike Path/Lake Street Project

This memo serves as a request for tree removal approvals associated with two current Town construction projects detailed below. While I would typically hold Tree Hearings separate from a Select Board request, the current Covid-19 situation we find ourselves in makes that extremely challenging and State Law allows for the Select Board to vote on tree removals for certain public construction projects. Both of these projects, including the impacts and prosed plantings, were discussed at a Tree Committee Meeting on May 13th.

Massachusetts Avenue Sidewalk Replacement (Pleasant Street to Franklin Street)

Associated with this project is the request to remove one tree. The tree in question is in front of 420 Massachusetts Ave and is a 14" Honey Locust. It is located too close to an existing driveway opening and it was determined that the construction of a proper driveway apron will compromise the tree roots such that it would be unlikely to survive. The project proposes to plant a new tree (Red Maple) at this general location approximately 10 feet from the driveway opening.

The planting of nine additional trees are also proposed as part of this project. They consist of two in front of Whittemore Park, one in front of 309 Broadway (Brickstone Pizza), four along Broadway adjacent to the American Alarm building parking lot and two along Franklin St. adjacent to Play Time. These trees consist of Red Maples and Green Vase Zelkovas. The tree species were reviewed and approved by Arlington's Tree Warden as suitable street trees. A sketch is attached identifying the tree to be removed and the proposed new trees.

We currently have bids in hand for the project and are hopeful we can start in early June.

Minuteman Path Improvements at Lake Street

Over the past few years, a design has been developed to improve operation at this location for pedestrians, cyclists, and motor vehicle operators with regard to mobility and safety. A review committee was formed to oversee the design which included members of the DPW, APD, TAC, Walking in Arlington, and ABAC.

The resulting project includes new signalization at the bike path and as well as widening of the path at the intersection of Lake Street. This widening allows for pedestrians and cyclists to have their own lanes when crossing Lake Street. The widening also impacted several mature trees. As shown on the attached sketch, six

trees are proposed to be removed to allow for the widening of the path. In order to offset these removals, the DPW proposes to plant 8 new trees at the site. The new trees consist of Lindens, Hophornbeams, Hornbeams, Tulip Trees and Princeton Elms. The proposed trees are also shown on the attached plan.

In addition to the trees proposed at the project site, the DPW will make a commitment to plant additional street trees in the adjacent neighborhoods during our next available spring and fall planting programs. A sketch showing possible proposed locations is also attached.

The Town's Tree Warden was involved with the project in both helping to minimize disruption to existing trees as well as helping to select the new plantings.

This project has been bid and awarded. It is our desire to complete construction over the summer while school is out.

Thank you for your consideration of these requests.

\\vhb\gis\proj\Wat-TR\13982.01 Mass Ave - Sidewalk Recon\cad\dwlang\Tree Removal\13982.01_Tree Removal Figure.dwg

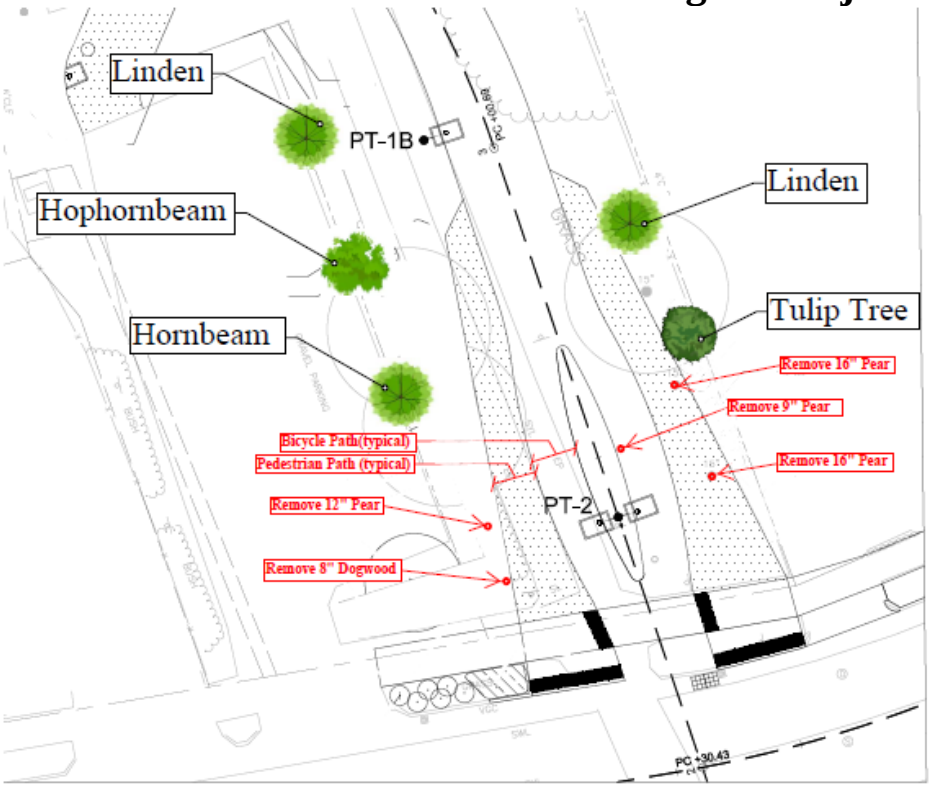
Tree Inventory

Massachusetts Avenue Sidewalk Reconstruction Project
Arlington, MA

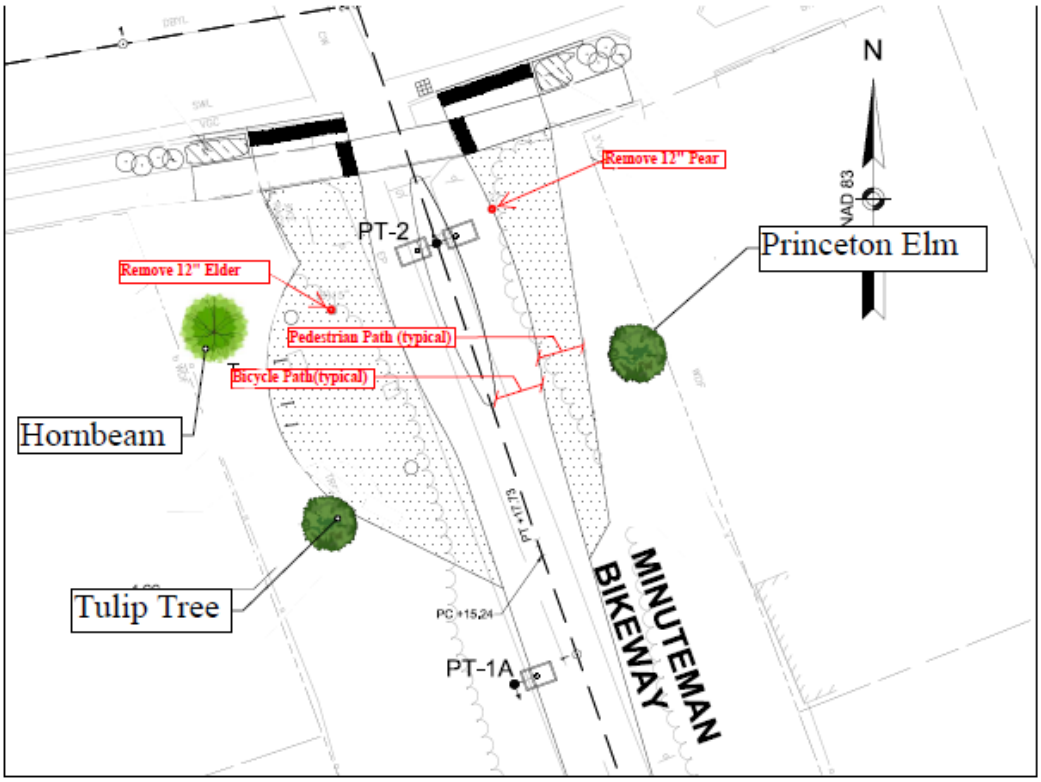
Legend

- EXISTING TREE
- TREE REMOVED - SIDEWALK PROJECT IMPACTS
- NEW TREE

Lake Street – Minuteman BikePath Traffic Signal Project Tree Plan

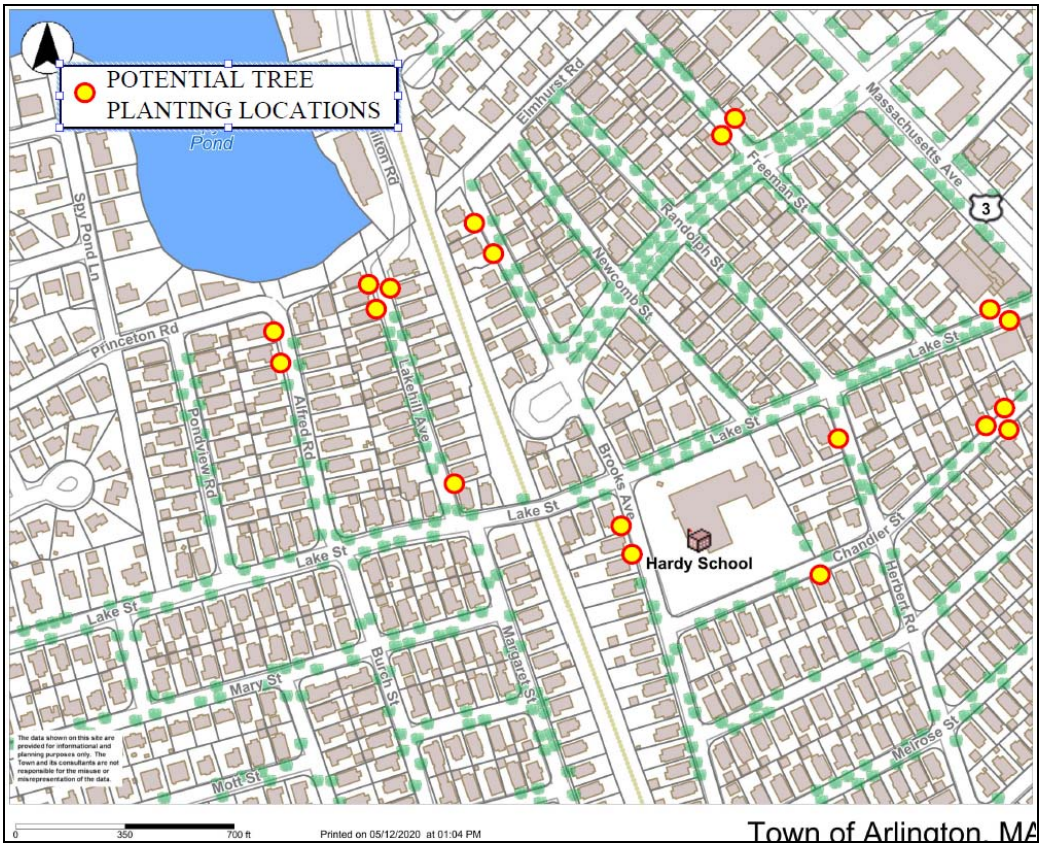


Tree Removal and Planting Sketch (North)



Tree Removal and Planting Sketch (South)

Additional Tree Planting Locations



Town of Arlington, Massachusetts

Proposed Tree Removal: Lake Street/Bikeway Intersection Project

Summary:
Michael Rademacher, Director of Public Works

ATTACHMENTS:

	Type	File Name	Description
🗋	Reference Material	Selectboard_tree_request_for_Mass_Ave_and_Lake_Street.pdf	Reference

PUBLIC WORKS DEPARTMENT
TOWN OF ARLINGTON
51 Grove Street, Arlington, Massachusetts 02476
Phone: (781) 316-3104 Fax: (781) 316-3281

Memo to: Select Board

From: Mike Rademacher, DPW Director

Date: May 15, 2020

Subject: Tree Removal Request
Mass Ave Center Sidewalk Project and Minuteman Bike Path/Lake Street Project

This memo serves as a request for tree removal approvals associated with two current Town construction projects detailed below. While I would typically hold Tree Hearings separate from a Select Board request, the current Covid-19 situation we find ourselves in makes that extremely challenging and State Law allows for the Select Board to vote on tree removals for certain public construction projects. Both of these projects, including the impacts and prosed plantings, were discussed at a Tree Committee Meeting on May 13th.

Massachusetts Avenue Sidewalk Replacement (Pleasant Street to Franklin Street)

Associated with this project is the request to remove one tree. The tree in question is in front of 420 Massachusetts Ave and is a 14" Honey Locust. It is located too close to an existing driveway opening and it was determined that the construction of a proper driveway apron will compromise the tree roots such that it would be unlikely to survive. The project proposes to plant a new tree (Red Maple) at this general location approximately 10 feet from the driveway opening.

The planting of nine additional trees are also proposed as part of this project. They consist of two in front of Whittemore Park, one in front of 309 Broadway (Brickstone Pizza), four along Broadway adjacent to the American Alarm building parking lot and two along Franklin St. adjacent to Play Time. These trees consist of Red Maples and Green Vase Zelkovas. The tree species were reviewed and approved by Arlington's Tree Warden as suitable street trees. A sketch is attached identifying the tree to be removed and the proposed new trees.

We currently have bids in hand for the project and are hopeful we can start in early June.

Minuteman Path Improvements at Lake Street

Over the past few years, a design has been developed to improve operation at this location for pedestrians, cyclists, and motor vehicle operators with regard to mobility and safety. A review committee was formed to oversee the design which included members of the DPW, APD, TAC, Walking in Arlington, and ABAC.

The resulting project includes new signalization at the bike path and as well as widening of the path at the intersection of Lake Street. This widening allows for pedestrians and cyclists to have their own lanes when crossing Lake Street. The widening also impacted several mature trees. As shown on the attached sketch, six

trees are proposed to be removed to allow for the widening of the path. In order to offset these removals, the DPW proposes to plant 8 new trees at the site. The new trees consist of Lindens, Hophornbeams, Hornbeams, Tulip Trees and Princeton Elms. The proposed trees are also shown on the attached plan.

In addition to the trees proposed at the project site, the DPW will make a commitment to plant additional street trees in the adjacent neighborhoods during our next available spring and fall planting programs. A sketch showing possible proposed locations is also attached.

The Town's Tree Warden was involved with the project in both helping to minimize disruption to existing trees as well as helping to select the new plantings.

This project has been bid and awarded. It is our desire to complete construction over the summer while school is out.

Thank you for your consideration of these requests.

\\vhb\gis\proj\Wat-TR\13982.01 Mass Ave - Sidewalk Recon\cad\dwlang\Tree Removal\13982.01_Tree Removal Figure.dwg

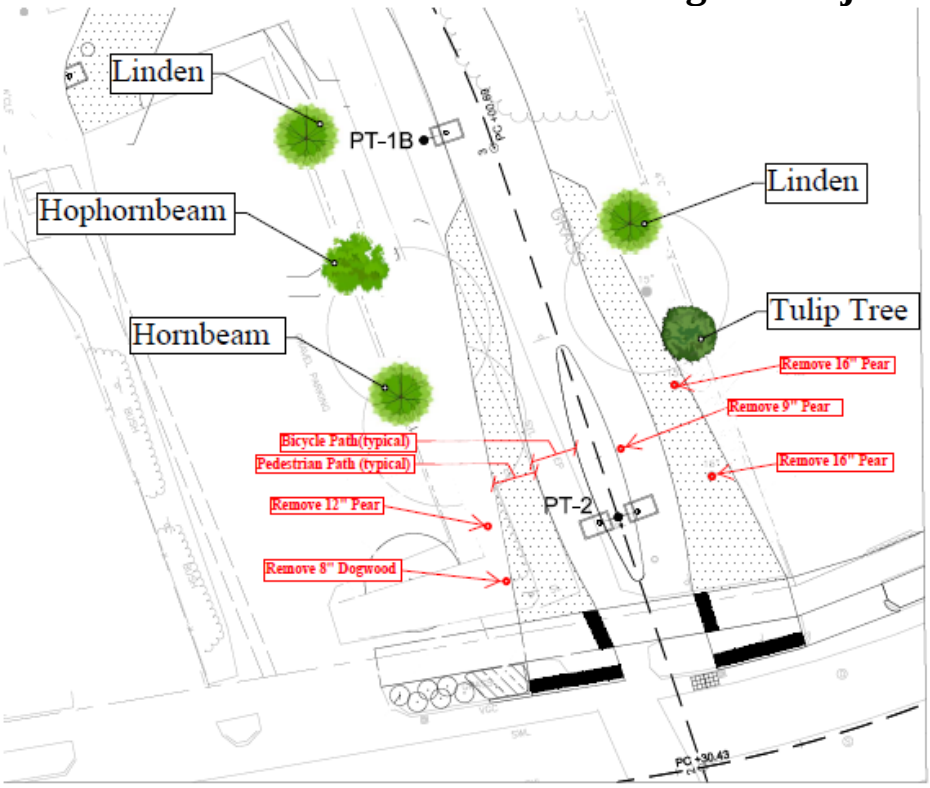
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Massachusetts Avenue Sidewalk Reconstruction Project
Arlington, MA

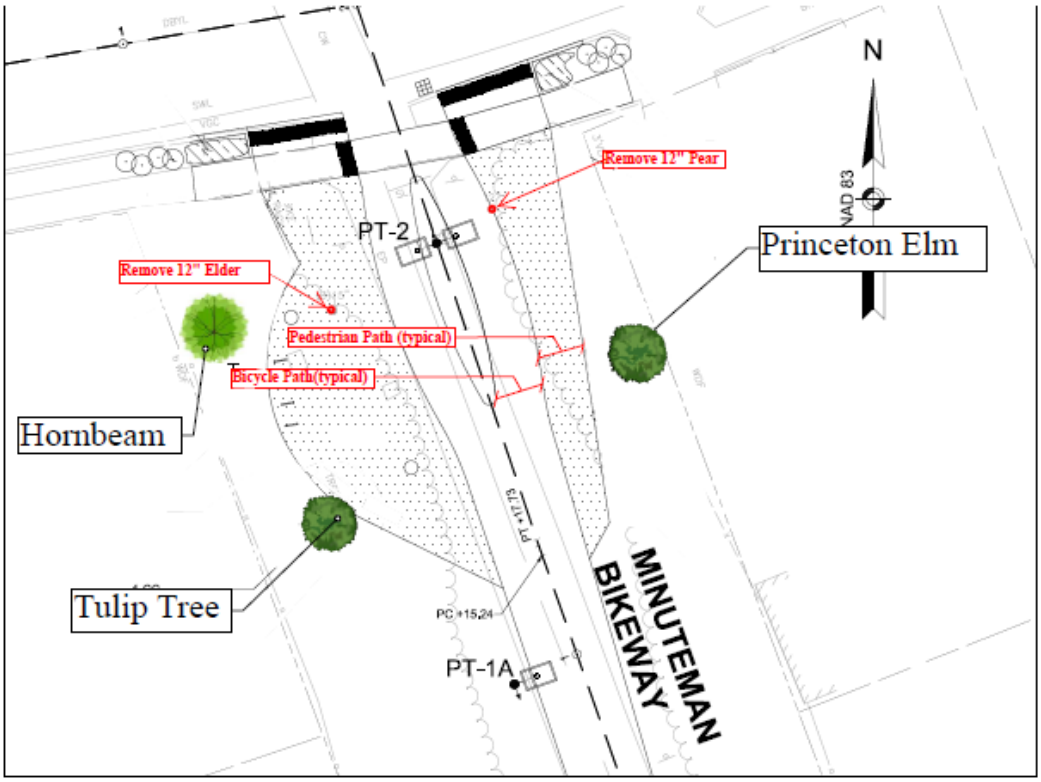
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Lake Street – Minuteman BikePath Traffic Signal Project Tree Plan

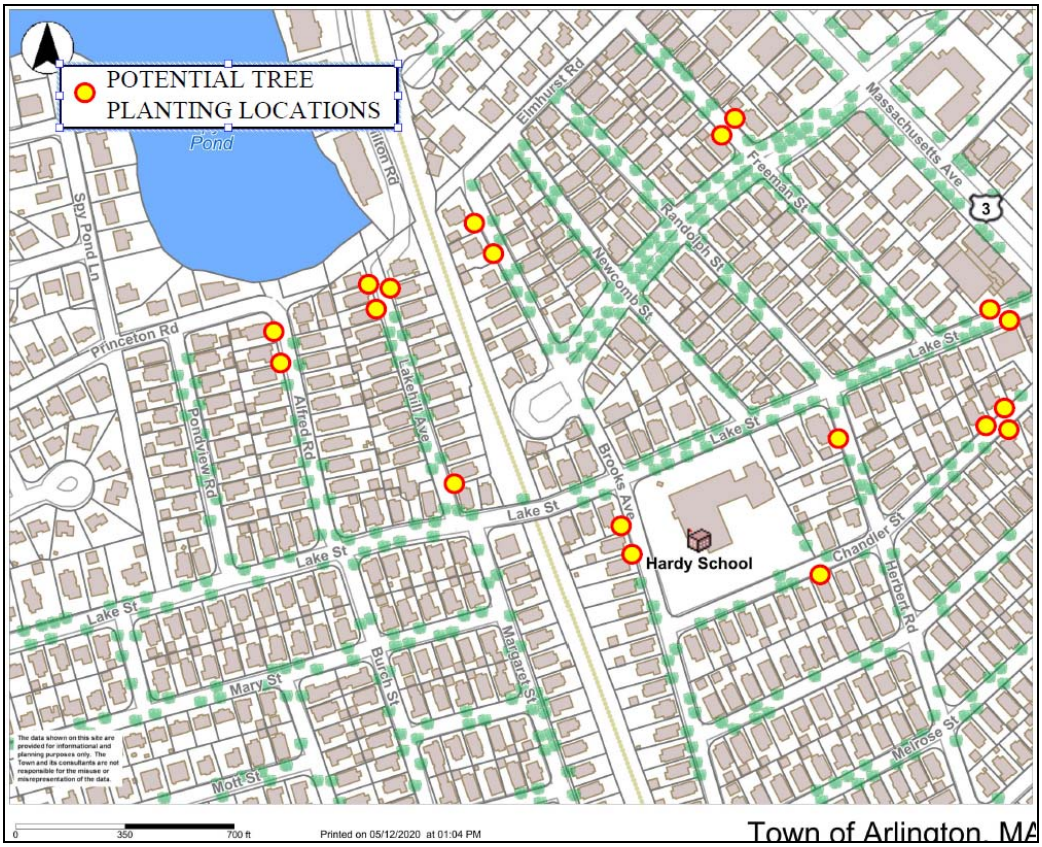


Tree Removal and Planting Sketch (North)



Tree Removal and Planting Sketch (South)

Additional Tree Planting Locations



Town of Arlington, Massachusetts

Disability Commission (term to expire 1/31/2023)

Summary:
Paul Parravano

ATTACHMENTS:

	Type	File Name	Description
🗋	Reference Material	P._Parravano_appt.pdf	P.Parravano Reference

Town of Arlington
Office of the Town Manager

Adam W. Chapdelaine
Town Manager

730 Massachusetts Avenue
Arlington MA 02476-4908
Phone (781) 316-3010
Fax (781) 316-3019
E-mail: achapdelaine@town.arlington.ma.us

MEMORANDUM

DATE: May 7, 2020

TO: Board Members

SUBJECT: Appointment to the Disability Commission

This memo is to request the Board's approval of my appointment of Paul Parravano, Arlington, MA, to the Disability Commission, with a term expiration date of 01/31/2023.

Town Manager

Paul Parravano
Massachusetts Institute of Technology
Co-Director, Government and Community Relations

Paul Parravano has been part of the MIT community since 1991. His role in the Office of Government and Community Relations involves fostering communication and understanding between the Massachusetts Institute of Technology and all levels of government, major constituency groups, and MIT's surrounding community. He serves as a liaison and resource for people within MIT who may have a need to work with external parties and those in the community who have a similar need to interact with the Institute. Mr. Parravano serves as MIT's campus federal relations officer, accompanying MIT's President on regular visits to Washington and hosting campus visits by elected officials and other dignitaries.

In Cambridge, Paul works to strengthen MIT's involvement in science education for K-12 teachers and students through a growing list of partnerships, especially with the Cambridge Public Schools. In all of his work and travel, both in Washington and locally, Paul's most critical task is to represent the Institute in a personal way as a resource for knowledge, neighborly support, and the advancement of MIT's mission of scientific education and research.

Prior to his employment at MIT, Paul worked as a staff attorney in a civil rights consulting firm in the Boston area, providing advice and consultation for corporations on the implementation of civil rights regulations. He received his undergraduate degree from Harvard University and a law degree from Northeastern University School of Law. Paul likes to highlight his strong affinity for baseball, barbecue, and water sports. His greatest delight flows from his family, which includes two absolutely splendid daughters, Emily and Eleanora, and his wife Martha.

OFFICE OF THE SELECT BOARD

DIANE M. MAHON, CHAIR
DANIEL J. DUNN, VICE CHAIR
JOSEPH A. CURRO, JR.
JOHN V. HURD
STEPHEN W. DECOURCEY

730 MASSACHUSETTS AVENUE
TELEPHONE
781-316-3020
781-316-3029 FAX

TOWN OF ARLINGTON
MASSACHUSETTS 02476-4908

May 7, 2020

Paul Parravano
Arlington, MA 02476
via email: paulp@mit.edu

Re: Appointment: Disability Commission

Dear Mr. Parravano:

As a matter of the standard appointment procedure, the Select Board requests that you attend a virtual meeting of the Select Board conducted by remote participation, on Monday, May 18th at 7:15 p.m.

It is a requirement of the Select Board that you join this virtual meeting. This will give the Board an opportunity to meet and discuss matters with you about the area of activity in which you will be involved.

Information which includes the link to the Zoom meeting will be available at the bottom of the Select Board Agenda as well as on the Town Calendar when the meeting is posted Thursday, May 14th by 7:00 p.m.

Please contact this office by e-mail, freidy@town.arlingtron.ma.us, if you have any questions.

Thank you.

Very truly yours,
SELECT BOARD

Marie A. Krepelka

Marie A. Krepelka
Board Administrator

MAK:fr

Town of Arlington, Massachusetts

LGBTQIA & Rainbow Commission (terms to expire 1/31/2023)

Summary:
Maura Albert
Leonard Goldstein
Susan Ryan-Volmer

ATTACHMENTS:

	Type	File Name	Description
🗋	Reference Material	M._Albert_appt.pdf	M. Albert Reference
🗋	Reference Material	L._Goldstein_appt.pdf	L. Goldstein Reference
🗋	Reference Material	S._Ryan_Vollmar_appt..pdf	S. Ryan-Vollmar Reference

Town of Arlington
Office of the Town Manager

Adam W. Chapdelaine
Town Manager

730 Massachusetts Avenue
Arlington MA 02476-4908
Phone (781) 316-3010
Fax (781) 316-3019
E-mail: achapdelaine@town.arlington.ma.us

MEMORANDUM

DATE: May 7, 2020

TO: Board Members

SUBJECT: Appointment to the LGBTQIA+Rainbow Commission

This memo is to request the Board's approval of my appointment of Maura Albert, Arlington, MA, to the LGBTQIA+Rainbow Commission, with a term expiration date of 01/31/2023.

Town Manager

From: Maura Albert <[redacted]>
To: "townmanager@town.arlington.ma.us" <townmanager@town.arlington.ma.us>
Date: Tue, 11 Feb 2020 19:23:56 +0000
Subject: Letter of interest for LGBTQIA+ Rainbow Commission

Dear Town Manager Adam Chapdelaine,

I am writing to express my interest in becoming a member of Arlington's LGBTQIA+ Rainbow Commission. I identify as bisexual or pansexual, am married to a woman and have lived in Arlington for the past 20 years. I am currently a retired teacher of the Winchester Public Schools. My age is 71. While I have a busy retirement, I have been looking for a way to get involved in the town of Arlington. I am thrilled that this commission exists and would like to contribute to its success and longevity. It's been a very long time since I wrote a resume but will do what I can. Thank you for your consideration.

Maura Albert

[redacted]

Arlington, MA 02474

[redacted]

[redacted]

OFFICE OF THE SELECT BOARD

DIANE M. MAHON, CHAIR
DANIEL J. DUNN, VICE CHAIR
JOSEPH A. CURRO, JR.
JOHN V. HURD
STEPHEN W. DECOURCEY

730 MASSACHUSETTS AVENUE
TELEPHONE
781-316-3020
781-316-3029 FAX

TOWN OF ARLINGTON
MASSACHUSETTS 02476-4908

May 7, 2020

Maura Albert
Arlington, MA 02474
via email: maurahalbert@hotmail.com

Re: Appointment: LGBTQIA+Rainbow Commission

Dear Ms. Albert:

As a matter of the standard appointment procedure, the Select Board requests that you attend a virtual meeting of the Select Board conducted by remote participation, on Monday, May 18th at 7:15 p.m.

It is a requirement of the Select Board that you join this virtual meeting. This will give the Board an opportunity to meet and discuss matters with you about the area of activity in which you will be involved.

Information which includes the link to the Zoom meeting will be available at the bottom of the Select Board Agenda as well as on the Town Calendar when the meeting is posted Thursday, May 14th by 7:00 p.m.

Please contact this office by e-mail, freidy@town.arlingtron.ma.us, if you have any questions.

Thank you.

Very truly yours,
SELECT BOARD

Marie A. Krepelka
Board Administrator

MAK:fr

Town of Arlington
Office of the Town Manager

Adam W. Chapdelaine
Town Manager

730 Massachusetts Avenue
Arlington MA 02476-4908
Phone (781) 316-3010
Fax (78l) 316-3019
E-mail: achapdelaine@town.arlington.ma.us

MEMORANDUM

DATE: May 7, 2020

TO: Board Members

SUBJECT: Appointment to the LGBTQIA+Rainbow Commission

This memo is to request the Board's approval of my appointment of Leonard Goldstein, Arlington, MA, to the LGBTQIA+Rainbow Commission, with a term expiration date of 01/31/2023.

Town Manager

LEONARD GOLDSTEIN
ARLINGTON, MA 02476
[redacted]

EMPLOYMENT

Chief Financial Officer
Keshet, Boston, MA, *2017 – Present*
Leads efforts to maximize and strengthen organizational capacity. Responsible for financial policy and direction, administration and operations. As a member of the Executive Team, actively partner in, and help drive, the organization's overall strategy. Lead the finance, IT, data and administrative staff. Manage human resources. Work closely with the board of directors and staff the Finance and Personnel Committees.

Select Responsibilities and accomplishments include:

- Direct the creation and management of organizational and department budgets.
- Prepare budgets and financial reports for foundation proposals and reports.
- Manage organizational cash flow, forecasting and reporting.
- Coordinate and lead the annual audit process, serve as liaison with external auditors and the Finance Committee.
- Implemented web/application-based software to streamline accounts payable and expense reports processes.
- Engaged with a Professional Employer Organization (PEO) that both reduced costs and significantly improved staff benefits.
- Hired a Managed Service Provider to ensure that the organization has appropriate technical and strategic IT support and cyber-security measures in place as our structures grow.
- Skilled at translating technical financial information for non-financial thinkers.

Associate Director
Tufts Hillel, Medford, MA, *1998 – 2017*
Responsible for fiscal and budgetary management, facility utilization, personnel and administration management, events planning, Board of Directors resource development, alumni relations, and institutional advancement. Represented the Executive Director and Hillel's interests with university administration and departments, including Advancement, Alumni Affairs, Financial Systems, Dining Services, the Dean of Students Office, and others. Provided advice and counsel to the Executive Director and volunteer leadership in strategic planning and organizational management.

Select Responsibilities and accomplishments include:

- Managed financial achievement with 18 years of budget surpluses that allowed the organization to invest in organizational priorities while maintaining day to day operations through adequate cash reserves.
- Staffed Executive, Finance and Governance committees of the Board of Directors and significantly increased board member effectiveness through cultivation and training.

- Member of leadership team that raised $6.4m endowment; acted as liaison between University investment office and Finance Committee of the Board.
- Helped secure and steward multi-year $1m grant that created a signature Holocaust and Genocide education program.
- Facilitated Board and leadership team to create and implement policies regarding Israel programming, community engagement and programmatic and financial strategic growth.
- Led efforts as part of a pilot project that designed and implemented new personnel performance review protocols for Hillel field operations nationwide.

Acting Executive Director ad Interim
Tufts Hillel, Medford, MA, *January – July 2012*
Assumed the role of chief executive during the Executive Director's six-month sabbatical. Managed all internal and external affairs of a premier nonprofit organization serving Jewish college students. Responsible for program oversight and outcomes, operations, and development. Supervised ten full-time employees. Acted as primary contact with university offices and departments, partner agencies, individual donors, and grantors. Worked in partnership with the volunteer leadership to plan and implement annual Board of Directors goals and strategies. Staffed all board committees and working groups comprised of board members, staff, students, donors, and university representatives.

Project Coordinator
Flaschner Judicial Institute, Boston, MA, *1993 – 1998*
Managed the annual planning and implementation of educational courses for nonprofit organization serving Massachusetts judges. Managed marketing and sales of books and services to lawyers and judges. Coordinated production and editorial schedules, as well as distribution and inventory systems. Researched and wrote funding proposals. Coordinated registrar activities for academic programs. Acted as staff liaison to program faculty.

Promotions Coordinator
Gay Community News, Boston, MA, 1990 – 1991
Managed sales and circulation marketing for collectively run weekly nonprofit newspaper. Wrote and designed direct mail subscription campaigns. Negotiated vendor contracts. Planned and implemented promotional events. Managed volunteers.

EDUCATION

MBA – Nonprofit and Public Management
Questrum School of Business, Boston University, 1999

BA – Political Science and Sociology
University of New Hampshire, 1993

ADDITIONAL PROFESSIONAL EXPERIENCE

- Movement Advance Project LGBTQ CFO Conference, Planning Committee Member
- Hillel Institute (national professional conference) Steering Committee Member
- New Hillel Directors Training, Panelist on Board Governance
- Hillel Vision & Values Awards Review Committee Member

- Accreditation Site Visit Team Member (Syracuse University Hillel)

PROFESSIONAL RECOGITION

- Richard M. Joel Exemplar of Excellence Award, 2012 (awarded by Hillel International)

VOLUNTEER EXPERIENCE

- Member, Board of Overseers, Speakeasy Stage Company, Boston, Spring 2019 - Present
- Member, Board of Directors, Collage New Music, Boston, 2008 – 2016
- Top individual fundraiser, Cycle the Seacoast, benefiting the American Lung Association

OFFICE OF THE SELECT BOARD

DIANE M. MAHON, CHAIR
DANIEL J. DUNN, VICE CHAIR
JOSEPH A. CURRO, JR.
JOHN V. HURD
STEPHEN W. DECOURCEY

730 MASSACHUSETTS AVENUE
TELEPHONE
781-316-3020
781-316-3029 FAX

TOWN OF ARLINGTON
MASSACHUSETTS 02476-4908

May 7, 2020

Leonard Goldstein
Arlington, MA 02476
via email: igoldsteini@comcast.net

Re: Appointment: LGBTQIA+Rainbow Commission

Dear Mr. Goldstein:

As a matter of the standard appointment procedure, the Select Board requests that you attend a virtual meeting of the Select Board conducted by remote participation, on Monday, May 18th at 7:15 p.m.

It is a requirement of the Select Board that you join this virtual meeting. This will give the Board an opportunity to meet and discuss matters with you about the area of activity in which you will be involved.

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Please contact this office by e-mail, freidy@town.arlingtron.ma.us, if you have any questions.

Thank you.

Very truly yours,
SELECT BOARD

Marie A. Krepelka
Board Administrator

MAK:fr

Town of Arlington
Office of the Town Manager

Adam W. Chapdelaine
Town Manager

730 Massachusetts Avenue
Arlington MA 02476-4908
Phone (781) 316-3010
Fax (78l) 316-3019
E-mail: achapdelaine@town.arlington.ma.us

MEMORANDUM

DATE: May 7, 2020

TO: Board Members

SUBJECT: Appointment to the LGBTQIA+Rainbow Commission

This memo is to request the Board's approval of my appointment of, Susan Ryan-Vollmar, Arlington, MA, to the LGBTQIA+Rainbow Commission, with a term expiration date of 01/31/2023.

Town Manager



influence
CONSULTING

SUSAN RYAN-VOLLMAR

Principal

WORK EXPERIENCE

Principal, Influence Consulting
(2010 – Present)

Director of Communication and Interactive Technology, Blue Cross Blue Shield of MA Foundation
(2008 – 2010)

Editor-in-Chief, Bay Windows and South End News
(2005 –2008)

News Editor, Boston Phoenix
(1999 – 2004)

Supplements Editor, Boston Phoenix
(1996-1999)

EDUCATION

Boston University
Master of Science, Journalism (1993)

University of New Hampshire
Bachelor of Arts, English (1986)

[redacted]

SUMMARY

Susan Ryan-Vollmar has worked for 25 years in media and communications. Since 2010 she has run Influence Consulting, a communications consultancy that brings public attention to social justice issues ranging from LGBTQIA+ equality and ending sexual violence to the need for greater access to health care, the arts, and education. Highlights of her consultancy include leading the media advocacy campaign that helped shape public debate prior to passage of the 2011 transgender equal rights law and bringing international attention to the Boston Gay Men's Chorus's historic tour of the Middle East in 2015. She contributes occasional opinion pieces on culture and politics to WGBH News.

AWARDS

2016, Lifetime achievement "History Maker" award from The History Project for work as editor-in-chief of Bay Windows from 2004 to 2008, when she led the paper's coverage of the fight for marriage equality, and for her work as news editor of the Boston Phoenix, when she oversaw the paper's investigative reporting in 2000 and 2001 exposing the abuse of children by priests taking place within the Boston Archdiocese.

2016, Excellence in NonProfit Communications award from the Massachusetts NonProfit Network for designing and implementing the communications plan for the Boston Gay Men's Chorus 2015 tour of the Middle East.

OFFICE OF THE SELECT BOARD

DIANE M. MAHON, CHAIR
DANIEL J. DUNN, VICE CHAIR
JOSEPH A. CURRO, JR.
JOHN V. HURD
STEPHEN W. DECOURCEY

730 MASSACHUSETTS AVENUE
TELEPHONE
781-316-3020
781-316-3029 FAX

TOWN OF ARLINGTON
MASSACHUSETTS 02476-4908

May 7, 2020

Susan Ryan-Vollmar
Arlington, MA 02474
via email: susan@influenceconsulting.net

Re: Appointment: LGBTQIA+Rainbow Commission

Dear Ms. Ryan-Vollmar:

As a matter of the standard appointment procedure, the Select Board requests that you attend a virtual meeting of the Select Board conducted by remote participation, on Monday, May 18th at 7:15 p.m.

It is a requirement of the Select Board that you join this virtual meeting. This will give the Board an opportunity to meet and discuss matters with you about the area of activity in which you will be involved.

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Thank you.

Very truly yours,
SELECT BOARD

Marie A. Krepelka
Board Administrator

MAK:fr

Town of Arlington, Massachusetts

Vote of Adoption: Arlington Hazard Mitigation Plan

Summary:
Jennifer Raitt, Director, Planning and Community Development

ATTACHMENTS:

	Type	File Name	Description
🗋	Reference Material	Arlington_Certificate_of_Adoption_2020_Plan_Update_#2.doc	Resolution
🗋	Reference Material	Arlington_MA_Final_Plan_-_APA_2020-04-23.pdf	Hazard Mitigation Plan

OFFICE OF THE SELECT BOARD

DIANE M. MAHON, CHAIR
DANIEL J. DUNN, VICE CHAIR
JOSEPH A. CURRO, JR.
JOHN V. HURD
STEPHEN W. DECOURCEY

730 MASSACHUSETTS AVENUE
TELEPHONE
781-316-3020
781-316-3029 FAX

TOWN OF ARLINGTON
MASSACHUSETTS 02476-4908

CERTIFICATE OF ADOPTION

SELECT BOARD

TOWN OF ARLINGTON, MASSACHUSETTS

A RESOLUTION ADOPTING THE
TOWN OF ARLINGTON HAZARD MITIGATION PLAN 2020 UPDATE

WHEREAS: The Town of Arlington established a Committee to prepare the *Town of Arlington Hazard Mitigation Plan 2020 Update*; and

WHEREAS: The *Town of Arlington Hazard Mitigation Plan 2020 Update* contains several potential future projects to mitigate potential impacts from natural hazards in the Town of Arlington; and

WHEREAS: Duly-noticed public meetings were held by the Town on June 13, 2019 and ON January 27, 2020; and

WHEREAS: The Town of Arlington authorizes responsible departments and/or agencies to execute their responsibilities demonstrated in the plan.

NOW, THEREFORE, BE IT RESOLVED, that the Town of ARLINGTON SELECT BOARD adopts the *Town of Arlington Hazard Mitigation Plan 2020 Update*, in accordance with M.G.L. 40 §4 or the charter and bylaws of the Town of Arlington.

ADOPTED AND SIGNED: May 18, 2020

Diane M. Mahon, Chair
Select Board

TOWN OF ARLINGTON
HAZARD MITIGATION PLAN
2020 UPDATE

h



Final Plan
FEMA Approval Pending Adoption
April 23, 2020

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ACKNOWLEDGEMENTS & CREDITS

This plan was prepared for the Town of Arlington by the Metropolitan Area Planning Council (MAPC) under the direction of the Massachusetts Emergency Management Agency (MEMA) and the Massachusetts Department of Conservation and Recreation (DCR). The plan was funded by the Federal Emergency Management Agency's (FEMA) Pre-Disaster Mitigation (PDM) Grant Program.

MAPC Officers

President	Erin Wortman, Town of Stoneham
Vice President	Adam Chapdelaine, Town of Arlington
Secretary	Sandra Hackman, Town of Bedford
Treasurer	Sam Seidel, Gubernatorial
Executive Director:	Marc. D. Draisen

Credits

Project Manager:	Martin Pillsbury
Mapping/GIS Services:	Caitlin Spence

Massachusetts Emergency Management Agency

Director:	Samantha Philips

Department of Conservation and Recreation

Commissioner:	Jim Montgomery

Town of Arlington Local Hazard Mitigation Team

Christine Bongiorno	Director, Health and Human Services
Mike Byrne	Director, Inspectional Services
Wayne Chouinard	Town Engineer, DPW
James Curran	Police Department
Jim Feeney	Acting Director, Facilities
Julie Flaherty	Acting Police Chief
Kevin Kelley	Fire Chief
Adam Kurowski	Director of GIS, IT
Kelly Lynema	Senior Planner, Planning & Comm. Development
Stacey Mulroy	Director, Recreation Department
Michael Rademacher	Director, DPW
Jenny Raitt	Director, Planning & Community Development
Ray Santilli	Assistant Town Manager
Emily Sullivan	Environmental Planner, Planning & Comm. Development
Natasha Waden	Public Health Director, Health and Human Services
Erin Zwirko	Assistant Director, Planning & Comm. Development

Public Meeting Participants and Community Stakeholders

Special thanks to the public meeting participants and community stakeholders who provided feedback for the development of this plan.

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SECTION 1: EXECUTIVE SUMMARY

Hazard Mitigation planning is a proactive effort to identify actions that can be taken to reduce the dangers to life and property from natural hazard events. In the communities of the Boston region of Massachusetts, hazard mitigation planning tends to focus most on flooding, the most likely natural hazard to impact these communities. The Federal Disaster Mitigation Act of 2000 requires all municipalities that wish to be eligible to receive FEMA funding for hazard mitigation grants, to adopt a local multi-hazard mitigation plan and update this plan in five-year intervals. The purpose of the Hazard Mitigation Plan is to assess and prioritize what the Town can do pre-disaster, to mitigate the potential impacts of a natural disaster. The Hazard Mitigation Plan is distinct from the Comprehensive Emergency Management Plan, the purpose of which is to assess and improve the during-disaster emergency response and post-disaster recovery tactics of the Town.

PLANNING PROCESS

Planning for the Hazard Mitigation Plan update was led by the Arlington Local Hazard Mitigation Planning Team, composed of staff from several different town departments (see Table 1). The team was coordinated by Emily Sullivan, Environmental Planner & Conservation Agent from the Department of Planning and Community Development. This team met on March 12, 2019, June 27, 2019, and September 24, 2019 and discussed where the impacts of natural hazards most affect the town, goals for addressing these hazards, updates to the Town's existing mitigation measures, and review of new or revised hazard mitigation measures that would benefit the town in this plan update.

Public participation in this planning process is important for improving awareness of the potential impacts of natural hazards and to build support for the actions the Town takes to mitigate them. The Town's Local Hazard Mitigation Planning Team hosted two public meetings, the first on June 13, 2019 and the second on January 27, 2020 and, the draft plan update was posted on the Town's website for public review. Key town stakeholders and neighboring communities were notified and invited to review the draft plan and submit comments.

RISK ASSESSMENT

The Arlington Hazard Mitigation Plan assesses the potential impacts to the town from flooding, high winds, winter storms, brush fire, geologic hazards, extreme temperatures, and drought. These are shown in the map series in Appendix A.

The Arlington Local Hazard Mitigation Planning Team identified 119 Critical Facilities. These are also shown on the map series and listed in Table 31, identifying which facilities are located within the mapped hazard zones.

Hazards U.S. – Multihazards (HAZUS-MH) is a standardized methodology developed by FEMA that utilizes Geographic Information Systems (GIS) to estimate physical, economic, and social impacts of disasters. The HAZUS-MH analysis for Arlington estimates property damages from Hurricanes of 100-year and 500-year frequencies ($36 million to $152 million), earthquakes of magnitudes 5 and 7 ($858 million to $6.3 billion), and the 1% and 0.2% chance of floDoding ($102 to $168 million).

HAZARD MITIGTION GOALS

The Arlington Local Multiple Hazard Community Planning Team endorsed the following hazard mitigation goals at the September 24, 2019 team meeting. The Town added an additional goal focused on incorporating mitigation for climate adaptation and resiliency.

1. Prevent and reduce the loss of life, injury, public health impacts and property damages resulting from all major natural hazards.

2. Identify and seek funding for measures to mitigate or eliminate each known significant flood hazard area.

3. Integrate hazard mitigation planning as an integral factor in all relevant municipal departments, committees and boards.

4. Prevent and reduce the damage to public infrastructure resulting from all hazards.

5. Encourage the business community, major institutions and non-profits to work with the Town to develop, review and implement the hazard mitigation plan.

6. Work with surrounding municipalities, state, regional and federal agencies to ensure regional cooperation and solutions for hazards affecting multiple jurisdictions.

7. Ensure that future development meets federal, state and local standards for preventing and reducing the impacts of natural hazards.

8. Take maximum advantage of resources from FEMA and MEMA to educate Town staff and the public about hazard mitigation.

9. Implement multi-benefit climate adaptation and resiliency solutions across town to mitigate hazards and improve resilience.

HAZARD MITIGTION STRATEGY

The Arlington Local Hazard Mitigation Planning Team identified several mitigation measures that would serve to reduce the Town's vulnerability to natural hazard events. Overall, the hazard mitigation strategy recognizes that mitigating hazards for Arlington will be an ongoing process as our understanding of natural hazards and the steps that can be taken to mitigate their damages changes over time. Global climate change and a variety of other factors will impact the Town's vulnerability in the future, and local officials will need to work together across municipal lines and with state and federal agencies in order to understand and address these changes. The Hazard Mitigation Strategy will be incorporated into the Town's other related plans and policies. Implementation will be coordinated with the Town's Municipal Vulnerability Preparedness (MVP) Plan recommendations for action.

PLAN REVIEW AND UPDTATE PROCESS

The process for developing Arlington's Hazard Mitigation Plan 2020 Update is summarized in Table 1.

Table 1: Plan Review and Update Process

Section	Reviews and Updates
Section 3: Public Participation	The Local Hazard Mitigation Planning Team placed an emphasis on public participation for the update of the Hazard Mitigation Plan, discussing strategies to enhance participation opportunities at the first local committee meeting. During plan development, the plan was discussed at two public meetings, the second of which was hosted by the Select Board. The plan was also available on the Town's website for public comment.
Section 4: Risk Assessment	MAPC gathered the most recently available hazard and land use data and met with town staff to identify changes in local hazard areas and development trends. Town staff reviewed critical infrastructure with MAPC staff in order to create an up-to-date list. MAPC also used the most recently available version of HAZUS (Version 4.2) and assessed the potential impacts of flooding using the latest data.
Section 5: Goals	The Hazard Mitigation Goals were reviewed and endorsed by the Arlington Local Hazard Mitigation Planning Team. A goal relating to climate change was added to the original goals from the previous plan.
Section 6: Existing Mitigation Measures	The list of existing mitigation measures was updated to reflect current mitigation activities in the town.
Sections 7 and 8: Hazard Mitigation Strategy	Mitigation measures from the 2012 plan were reviewed and assessed as to whether they were completed, in progress, or deferred. The Local Hazard Mitigation Planning Team determined whether to carry forward measures into the 2020 Plan Update or modify or delete them. The Plan Update's hazard mitigation strategy reflects both new measures and measures carried forward from the 2012 plan. The Local Hazard Mitigation Team prioritized all of these measures based on current conditions and Town priorities.
Section 9: Plan Adoption & Maintenance	This section of the plan was updated with a new on-going plan implementation review and five year update process that will assist the Town in incorporating hazard mitigation issues into other Town planning and regulatory review processes and better prepare the Town for the next comprehensive plan update.

As indicated in Table 36, Arlington made significant progress implementing mitigation measures identified in the 2012 Hazard Mitigation Plan. The Town has completed mapping all storm drains, identified an interim snow dumping location, developed greater flood preparations, developed a GIS-based wetlands mapping capacity, and conducted a hydrologic assessment of Mill Brook flooding. Several mitigation actions are in progress, including improvements to Minuteman Bikeway, open space acquisitions, program to eliminate SSOs, generators at the High School and the Gibbs School, renovation of the DPW building, increased sediment removal from catch basins, and increased resources for tree trimming. Several mitigation measures from the 2012 plan that were not completed will be continued into this plan 2020 update, including addressing flooding in the Mill Brook and Alewife Brook corridors and on Forest Street, Brattle Street, and Grove Street; addressing Sanitary Sewer Overflows; renovate the DPW building, study the feasibility of a stormwater utility or enterprise fund, and identify a new snow permanent dumping location.

Moving forward into the next five year plan implementation period there will be many more opportunities to incorporate hazard mitigation into the Town's decision making processes. As in the past, the Town will document any actions taken within this iteration of the Hazard Mitigation Plan on challenges met and actions successfully adopted as part of the ongoing plan maintenance to be conducted by the Arlington Hazard Mitigation Implementation Team, as described in Section 9, Plan Adoption and Maintenance.

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SECTION 2: INTRODUCTION

PLANNING REQUIREMENTS UNDER THE FEDERAL DISASTER MITIGATION ACT

The Federal Disaster Mitigation Act, passed in 2000, requires that after November 1, 2004, all municipalities that wish to continue to be eligible to receive FEMA funding for hazard mitigation grants, must adopt a local multi-hazard mitigation plan and update this plan in five year intervals. This planning requirement does not affect disaster assistance funding.

Federal hazard mitigation planning and grant programs are administered by the Federal Emergency Management Agency (FEMA) in collaboration with the states. These programs are administered in Massachusetts by the Massachusetts Emergency Management Agency (MEMA) in partnership with the Department of Conservation and Recreation (DCR).

The Town of Arlington contracted with the Metropolitan Area Planning Council (MAPC), to assist the Town in updating its local Hazard Mitigation Plan, which was first adopted in 2012. This 2020 plan update will be the Town's first update of its original plan.

WHAT IS A HAZARD MITIGATION PLAN?

Natural hazard mitigation planning is the process of determining how to systematically reduce or eliminate the loss of life and property damage resulting from natural hazards such as floods, earthquakes, and hurricanes. Hazard mitigation means to permanently reduce or alleviate the losses of life, injuries, and property resulting from natural hazards through long-term strategies. These long-term strategies include planning, policy changes, programs, projects, and other activities.

PREVIOUS FEDERAL/STATE DISASTERS

Since 1991, there have been 28 natural hazard events that triggered federal or state disaster declarations in Middlesex County. These are listed in Table below. The majority of these events involved flooding, while others were due to hurricanes or nor'easters, and severe winter weather.

Table 2: Previous Federal/State Disaster Declarations

Disaster Name / Date	Type of Assistance	Declared Areas
Hurricane Bob (August 1991)	FEMA Public Assistance Project Grants	Counties of Barnstable, Bristol, Dukes, Essex, Hampden, Middlesex, Plymouth, Nantucket, Norfolk, Suffolk
	Hazard Mitigation Grant Program	Counties of Barnstable, Bristol, Dukes, Essex, Hampden, Middlesex, Plymouth, Nantucket, Norfolk, Suffolk (16 projects)
No-Name Storm (October 1991)	FEMA Public Assistance Project Grants	Counties of Barnstable, Bristol, Dukes, Essex, Middlesex, Plymouth, Nantucket, Norfolk
	FEMA Individual Household Program	Counties of Barnstable, Bristol, Dukes, Essex, Middlesex, Plymouth, Nantucket, Norfolk

Disaster Name / Date	Type of Assistance	Declared Areas
	Hazard Mitigation Grant Program	Counties of Barnstable, Bristol, Dukes, Essex, Middlesex, Plymouth, Nantucket, Norfolk, Suffolk (10 projects)
March Blizzard (March 1993)	FEMA Public Assistance Project Grants	All 14 Counties
January Blizzard (January 1996)	FEMA Public Assistance Project Grants	All 14 Counties
May Windstorm (May 1996)	State Public Assistance Project Grants	Counties of Plymouth, Norfolk, Bristol
October Flood (October 1996)	FEMA Public Assistance Project Grants	Counties of Essex, Middlesex, Norfolk, Plymouth, Suffolk
	FEMA Individual Household Program	Counties of Essex, Middlesex, Norfolk, Plymouth, Suffolk
	Hazard Mitigation Grant Program	Counties of Essex, Middlesex, Norfolk, Plymouth, Suffolk (36 projects)
(1997)	Community Development Block Grant-HUD	Counties of Essex, Middlesex, Norfolk, Plymouth, Suffolk
June Flood (June 1998)	FEMA Individual Household Program	Counties of Bristol, Essex, Middlesex, Norfolk, Suffolk, Plymouth, Worcester
	Hazard Mitigation Grant Program	Counties of Bristol, Essex, Middlesex, Norfolk, Suffolk, Plymouth, Worcester
(1998)	Community Development Block Grant-HUD	Counties of Bristol, Essex, Middlesex, Norfolk, Suffolk, Plymouth, Worcester
March Flood (March 2001)	FEMA Individual Household Program	Counties of Bristol, Essex, Middlesex, Norfolk, Suffolk, Plymouth, Worcester
	Hazard Mitigation Grant Program	Counties of Bristol, Essex, Middlesex, Norfolk, Suffolk, Plymouth, Worcester
Snowstorm (March 2001)		Berkshire, Essex, Franklin, Hampshire, Middlesex, Norfolk, Worcester
February Snowstorm (Feb 17-18, 2003)	FEMA Public Assistance Project Grants	Statewide
Snowstorm (December 2003)		Barnstable, Berkshire, Bristol, Essex, Franklin, Hampden, Hampshire, Middlesex, Norfolk, Plymouth, Suffolk, Worcester
Flooding (April 2004)		Essex, Middlesex, Norfolk, Suffolk, Worcester
January Blizzard (January 22-23, 2005)	FEMA Public Assistance Project Grants	Statewide
Hurricane Katrina (August 29, 2005)	FEMA Public Assistance Project Grants	Statewide

Disaster Name / Date	Type of Assistance	Declared Areas
Severe storms and flooding (Oct. 2005)		Statewide
May Rainstorm/ Flood (May 12-23, 2006)	Hazard Mitigation Grant Program	Statewide
April Nor'easter (April 15-27, 2007)	Hazard Mitigation Grant Program	Statewide
Severe storm and flooding (Dec 2008)		Statewide
Flooding (March, 2010)	FEMA Public Assistance FEMA Individuals and Households Program SBA Loan	Bristol, Essex, Middlesex, Suffolk, Norfolk, Plymouth, Worcester
	Hazard Mitigation Grant Program	Statewide
Hurricane Earl (September 2010)	FEMA Public Assistance Project Grants	Barnstable, Bristol, Dukes, Essex, Middlesex, Nantucket, Norfolk, Plymouth, Suffolk, and Worcester
Severe winter storm (January 2011)		Berkshire, Essex, Hampden, Hampshire, Norfolk, Plymouth
Tropical Storm Irene (August 27-28, 2011)	FEMA Public Assistance	Barnstable, Berkshire, Bristol, Dukes, Franklin, Hampden, Hampshire, Norfolk, Plymouth
Severe snowstorm and Flooding (February 2013)	FEMA Public Assistance; Hazard Mitigation Grant Program	Statewide
Severe storm and flooding (Jan. 2015)		Barnstable, Bristol, Dukes, Essex, Middlesex, Nantucket, Norfolk, Plymouth, Suffolk, Worcester
Severe storm and flooding (March 2018)		Barnstable, Bristol, Essex, Nantucket, Norfolk, Plymouth
Severe winter storm (March 2018)		Essex, Middlesex, Norfolk, Suffolk, Worcester

Source: MA Hazard Mitigation and Climate Adaptation Plan, 2018

FEMA FUNDED MITIGATION PROJECTS

Town of Arlington has received funding from FEMA for two mitigation projects under FEMA's Hazard Mitigation Grant Program. These projects totaled $3,340,546, with $2,365,514 covered by FEMA grants and $940,032 by local funding. The projects are summarized in Table 3 below.

Table 3: FEMA-Funded Mitigation Projects

Grant #	Year	Project	Description	Total Cost	Federal Grant	Local Share
HMGP 1142-36	2001	Drainage Improvements	Upgrading existing drainage systems along Reeds Brook	$1,130,043	$733,887	$396,156

HMGP-1895-32	2010	Colonial Village Drainage Improvements and Fottler Ave Equalization Culvert	Channel improvements and culvert upgrades with inlet control and footbridge designed to protect the Colonial Village Apartments	$2,175,503	$1,631,627	$543,876

Source: MEMA Database

COMMUNITY PROFILE

Located west of Cambridge and Somerville, The Town of Arlington is part of the Boston region's Inner Core. Many residents of the town commute to Boston, approximately six miles away, while others are employed in area universities or along the nearby Route 128 corridor. Currently, the town has no manufacturing industry and is predominantly an urban residential community, with an active commercial corridor with a mix of retail, services, and restaurants, primarily along Massachusetts Avenue.

Arlington, founded over 350 years ago, remains proud of its history, even as it has grown into a thoroughly modern community. The birthplace of Uncle Sam, the location of the first public children's library, and the site of most of the fighting when the British marched through it returning from the Old North Bridge at the start of the Revolutionary War, Arlington has preserved many of its historical buildings and even recreated its town garden. Once a thriving agriculture and mill town, Arlington's excellent access to metropolitan Boston has made it a very desirable place to live.

The Town operates under the "Standard Form of Representative Town Meeting Government" according to Massachusetts General Laws Chapter 43A. The Town is governed by a five-member Select Board with a Town Manager and a Town Meeting made up of 252 representatives, elected from each of the 21 precincts. The town maintains a website at http://www.town.arlington.ma.us

According to the 2017 American Community Survey estimates, the population was 44,992 people and there were 19,615 housing units.

Table 4: Arlington Characteristics

Population = 44,992 people

- 7.0% are under age 5
- 21.5% are under age 18
- 16.4% are over age 65
- 2.4% live in group quarters
- 9.0% have a disability
- 5.6% of households are limited English-speaking
- 4.2% of workers over 16 have no vehicle available

Number of Housing Units = 19,615

- 39.1% are renter-occupied housing units
- 49% of housing units were built before 1940

Sources: US Census, 2017 American Community Survey

SECTION 3: PLANNING PROCESS & PUBLIC PARTICIPATION

MAPC employs a six step planning process based on FEMA's hazard mitigation planning guidance focusing on local needs and priorities but maintaining a regional perspective matched to the scale and nature of natural hazard events. Public participation is a central component of this process, providing critical information about the local occurrence of hazards while also serving as a means to build a base of support for hazard mitigation activities. MAPC supports participation by the general public and other plan stakeholders through the two public meetings hosted by the local Hazard Mitigation Team, posting of the plan to the Town's website, and invitations sent to neighboring communities, Town boards and commissions, and other local or regional entities to review the plan and provide comment.

PLANNING PROCESS SUMMARY

The six-step planning process outlined below is based on the guidance provided by FEMA's Local Multi-Hazard Mitigation Planning Guidance. Public participation is a central element of this process, which attempts to focus on local problem areas and identify needed mitigation measures based on where gaps occur in the existing mitigation efforts of the municipality. By working on municipal hazard mitigation plans in groups of neighboring cities and towns, MAPC is able to identify regional opportunities for collaboration and facilitate communication between communities. In plan updates, the process described below allows staff to bring the most recent hazard information into the plan, including new hazard occurrence data, changes to a municipality's existing mitigation measures, and progress made on actions identified in previous plans.

Figure 1: Six-Step Planning Process



1. **Map the Hazards** – MAPC relies on data from a number of different federal, state, and local sources in order to map the areas with the potential to experience natural hazards. This mapping represents a multi-hazard assessment of the municipality and is used as a set of base maps for the remainder of the planning process. A particularly important source of information is the knowledge drawn from local municipal staff on where natural hazard impacts have occurred. These maps can be found in Appendix A.

2. **Assess the Risks & Potential Damages** – Working with local staff, critical facilities, infrastructure, vulnerable populations, and other features are mapped and contrasted with the hazard data from the first step to identify those that might represent particular vulnerabilities to these hazards. Land use data and development trends are also incorporated into this analysis. In addition, MAPC develops estimates of the potential impacts of certain hazard events on the community. MAPC drew on the following resources to complete the plan:

 - Town of Arlington, Zoning Bylaw (as amended through 2019)
 - Town of Arlington Open Space and Recreation Plan 2015
 - Town of Arlington Municipal Vulnerability Preparedness report, 2018
 - Cambridge Climate Vulnerability Assessment. Part 1. April 2017
 - Center for Disease Control and Prevention, *Natural Disasters and Severe Weather*
 - FEMA, Local Mitigation Plan Review Guide, October 2011
 - FEMA, Flood Insurance Rate Maps for Middlesex County, MA, 2014
 - Gamble, J. L., Hurley, B. J., Schultz, P. A., Jaglom, W. S., Krishnan, N., & Harris, M., *Climate Change and Older Americans,* 2014
 - Massachusetts State Hazard Mitigation and Climate Adaptation Plan, 2018
 - Massachusetts State Hazard Mitigation Plan, 2013
 - Metropolitan Area Planning Council, GIS Lab, Regional Plans and Data
 - Northeast Climate Center UMass Amherst. Mass. Climate Change Projections, 2017
 - Northeast Wildfire Risk Assessment Geospatial Work Group,
 - New England Seismic Network, Boston College Weston Observatory, http://aki.bc.edu/index.htm
 - NOAA National Environmental Information Center
 - Northeast States Emergency Consortium, http://www.nesec.org/
 - USGCRP, I*mpacts, Risks, and Adaptation in the United States: Fourth National Climate Assessment*, 2018
 - USGS, National Water Information System, http://nwis.waterdata.usgs.gov/usa/nwis
 - USGS, Landslide Types and Processes. Fact Sheet 2003-3072
 - US Census, 2010 and American Community Survey 2017, 5-Year Estimates
 - Weston and Sampson, *Mill Brook Evaluation,* 2014

3. **Review Existing Mitigation** – Municipalities in the Boston Metropolitan Region have an active history in hazard mitigation as most have adopted floodplain zoning districts,

wetlands protection programs, and other measures as well as enforcing the State building code, which has strong provisions related to hazard resistant building requirements. All current municipal mitigation measures were be documented.

4. **Develop Mitigation Strategies** – MAPC worked with the local Hazard Mitigation Team to identify new mitigation measures, utilizing information gathered from the hazard identification, vulnerability assessments, and the community's existing mitigation efforts to determine where additional work is necessary to reduce the potential damages from hazard events. Additional information on the development of hazard mitigation strategies can be found in Section 7 and Section 8.

5. **Plan Approval & Adoption** – Once a final draft of the plan was complete it was sent to MEMA for the state level review and, following that, to FEMA for review and approval. Typically, once FEMA has approved the plan the agency issues a conditional approval (Approval Pending Adoption), with the condition being adoption of the plan by the municipality. More information on plan adoption can be found in Section 9 and documentation of plan adoption can be found in Appendix D.

6. **Implement & Update the Plan** – Implementation is the final and most important part of any planning process. Hazard Mitigation Plans must also be updated on a five year basis making preparation for the next plan update an important on-going activity. Section 9 includes more detailed information on plan implementation.

2012 PLAN IMPLEMENTATION & MAINTENANCE

The 2012 Arlington Hazard Mitigation Plan contained a risk assessment of identified hazards for the town and recommended mitigation measures to address the risk and vulnerability from these hazards. Since approval of the plan by FEMA and local adoption, progress has been made on implementation of some of the measures, including locating and mapping all storm drains, identifying an interim snow dumping location, and developing a GIS-based wetlands mapping capacity. Several others are in progress, including improvements to Minuteman Bikeway, open space acquisitions, program to eliminate SSOs, installation of generators at the High School and Gibbs Building, designs for renovation of the DPW building, increased sediment removal from catch basins. The status of mitigation measures from the 2012 plan is discussed in Section 6.

THE LOCAL MULTIPLE HAZARD COMMUNITY PLANNING TEAM

MAPC worked with the local community representatives to organize a Local Hazard Mitigation Planning Team for Arlington. MAPC briefed the community as to the desired composition of that team as well as the need for public participation in the local planning process.

The Local Hazard Mitigation Planning Team is central to the planning process as it is the primary body tasked with developing a mitigation strategy for the community. The local team was tasked with working with MAPC to set plan goals, provide information on the hazards that impact the town, existing mitigation measures, and helping to develop new mitigation measures for this plan update.

The Local Hazard Mitigation Planning Team membership is listed below. The team was coordinated by Emily Sullivan, Environmental Planner & Conservation Agent.

Name	Representing
Christine Bongiorno	Director, Health and Human Services
Mike Byrne	Director, Inspectional Services
Wayne Chouinard	Town Engineer, DPW James Curran Police Department
Jim Feeney	Acting Director, Facilities
Julie Flaherty	Acting Police Chief
Kevin Kelley	Fire Chief
Adam Kurowski	Director of GIS, IT
Kelly Lynema	Senior Planner, Planning & Community Development
Stacey Mulroy	Director, Recreation Department
Michael Rademacher	Director, DPW
Jenny Raitt	Director, Planning & Community Development
Ray Santilli	Assistant Town Manager
Emily Sullivan	Environmental Planner, Planning & Community Development
Natasha Waden	Public Health Director, Health and Human Services
Erin Zwirko	Assistant Director, Planning & Community Development

The Arlington Redevelopment Board, Zoning Board of Appeals, and the Arlington Conservation Commission are the primary entities responsible for regulating development in the Town. Feedback from these was assured through the participation of Planning and Community Development Department members as well as participation in the public meetings. In addition, MAPC, the State-designated regional planning authority for Arlington, works with all agencies that regulate development in the region, including the listed municipal entities and state agencies, such as MassDOT, DCR, the MBTA, and MWRA.

The Local Hazard Mitigation Planning Team met on the following dates: March 12, 2019, June 27, 2019, and September 24, 2019. The purpose of the meetings was to introduce the Hazard Mitigation planning program, review and update hazard mitigation goals, and to gather information on local hazard mitigation issues and sites or areas related to these. Later meetings focused on verifying information gathered by MAPC staff and discussion of existing mitigation practices, the status of mitigation measures identified in the Town's 2012 hazard mitigation plan, and potential new or revised mitigation measures. The agendas for these meetings are included in Appendix B.

PUBLIC MEETINGS

Public participation in the hazard mitigation planning process is important, both for plan development and for later implementation of the plan. Residents, business owners, and other community members are an excellent source for information on the historic and potential impacts of natural hazard events and particular vulnerabilities the community may face from these hazards. Their participation in this planning process also builds understanding of the concept of hazard mitigation, potentially creating support for mitigation actions taken in the future to implement the plan. To gather this information and educate residents on hazard mitigation, the Town hosted two public meetings, one during the planning process and one after a draft plan was available for review.

Natural hazard mitigation plans unfortunately rarely attract much public involvement in the Boston region, unless there has been a recent hazard event. One of the best strategies for overcoming this challenge is to include discussion of the hazard mitigation plan on the agenda of an existing board or commission. With this strategy, the meeting receives widespread advertising and a guaranteed audience of the board or commission members plus those members of the public who attend the meeting. These board and commission members represent an engaged audience that is informed and up to date on many of the issues that relate to hazard mitigation planning in the locality and will likely be involved in plan implementation, making them an important audience with which to build support for hazard mitigation measures. In addition, these meetings frequently receive press coverage, expanding the audience that has the opportunity to hear the presentation and provide comment.

The public had an opportunity to provide input to the Arlington hazard mitigation planning process at two public meetings. At the first meeting on June 13, 2019, an exercise engaged participants to consider the Town's strengths and the top concerns for natural hazards in Arlington. These are summarized in Appendix C. The draft plan update was presented at the second public meeting at the Arlington Select Board on January 27, 2020. Both meetings were publicized in accordance with the Massachusetts Public Meeting Law. The meeting agendas public meeting notices, and comments received by the Town can be found in Appendix C. The Town made revisions to the draft plan in response to comments received.

The draft Arlington Hazard Mitigation Plan 2020 Update was posted on the Town's website for the second public meeting. The meeting was broadcast throughout the Town by the local cable access channel, Arlington Community Media, Inc. Members of the public could access the draft document on the Town website after the public meeting and submit comments.

Table 5: Arlington Public Meetings

Public Meeting #1 June 13, 2019	
Owen R. Carrigan	
Steve Revilak	
Julie Wayman	
Kelly Lynema	
Tom Ebhrecht	
Erin Zwirko	
Susan Lees	
Emily Sullivan	
Public Meeting #2, Select Board Meeting, January 27, 2020	
Jenny Raitt	Adam Chapedelaine
Emily Sullivan	Ashley Maher
Diane Mahon	Patricia Worden
John Hurd	Beth Melofchik
Daniel Dunn	Xavid Pretzer
Stephen DeCourcey	Amos Meeks
Joseph Curro	Arn Franz
Douglas Heim	Susan Chapnick

LOCAL STAKEHOLDER INVOLVEMENT

The local Hazard Mitigation Planning Team was encouraged to reach out to local stakeholders that might have an interest in the Hazard Mitigation Plan including neighboring communities, agencies, businesses, nonprofits, and other interested parties. Notice was sent to the following organizations and neighboring municipalities inviting them to attend the public meeting and review the Hazard Mitigation Plan and submit comments to the Town:

- ☐ City of Cambridge
- ☐ City of Medford
- ☐ City of Somerville
- ☐ Town of Belmont
- ☐ Town of Lexington
- ☐ Town of Winchester
- ☐ Arlington Select Board
- ☐ Arlington Redevelopment Board
- ☐ Conservation Commission
- ☐ Zoning Board of Appeals
- ☐ Open Space Committee
- ☐ Disability Commission
- ☐ Municipal Vulnerability Preparedness Committee
- ☐ Envision Arlington
- ☐ Sustainable Arlington
- ☐ Council on Aging
- ☐ Board of Health
- ☐ Town Departments
- ☐ Housing Corporation of Arlington
- ☐ Arlington Housing Authority
- ☐ FoodLink
- ☐ Chamber of Commerce

CONTINUING PUBLIC PARTICIPATION

Following the adoption of the plan update, the local planning team will continue to provide residents, businesses, and other stakeholders the opportunity to learn about the hazard mitigation planning process and to contribute information that will update the Town's understanding of local hazards. As updates and a review of the plan are conducted by the Hazard Mitigation Implementation Team, these will be placed on the Town's web site.

PLANNING TIMELINE

March 12, 2019	Meeting of the Arlington Local Hazard Mitigation Planning Team
June 13, 2019	First Public Meeting
June 27, 2019	Meeting of the Arlington Local Hazard Mitigation Planning Team
September 24, 2019	Meeting of the Arlington Local Hazard Mitigation Planning Team
January 27, 2020	Second Public Meeting with the Arlington Select Board
February 28, 2020	Draft Plan Update submitted to MEMA
April 23, 2020	FEMA issued notice of Approval Pending Adoption
TBD	Final Plan Adopted by the Town of Arlington
TBD	FEMA issued formal letter of plan approval

POST PLAN APPROVAL - IMPLEMENTATION TIMELINE

After the plan has been approved by FEMA, the Town will observe the following timeline to implement the plan over the five-year approval period, and prepare for the next plan update.

If the Town wishes to apply for a FEMA grant to prepare the next plan update, due in 2025, a grant application should be submitted approximately two years before this plan expires, in order to allow time for the grant to be approved, and the next plan update to be completed before this plan expires. See Section 9 for more details on plan adoption and maintenance.

Mid-2022	Conduct Mid-Term Plan Survey on Progress
2023	Seek FEMA grant to prepare next plan update
2024	Begin process to update the plan
2025	Submit Draft 2024 Plan Update to MEMA and FEMA
TBD	FEMA approval of 2025 Plan Update

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SECTION 4: RISK ASSESSMENT

The risk assessment analyzes the potential natural hazards that could occur within the Town of Arlington as well as the relationship between those hazards and current land uses, potential future development, and critical infrastructure. Climate change is projected to have significant impacts on many natural hazards. The Town of Arlington completed a Municipal Vulnerability Preparedness community workshop in 2018 (see Appendix F). Information from 2012 Hazard Mitigation Plan was incorporated into the MVP project, and the MVP project informed this 2020 Hazard Mitigation Plan update. This section also includes a vulnerability assessment that estimates the potential damages that could result from certain large-scale natural hazard events such as hurricanes, earthquakes, and floods.

In order to update Arlington's risk assessment, MAPC gathered the most recently available hazard and land use data and met with Town staff to identify changes in local hazard areas and development trends. MAPC also used FEMA's damage estimation software, HAZUS.

OVERVIEW OF HAZARDS AND IMPACTS

Previous state and federal disaster declarations since 1991 are summarized in Table 2. Table 6 below summarizes the hazard risks for the state and the Town of Arlington . This evaluation takes into account the frequency of the hazard, historical records, and variations in land use. The statewide assessment was modified to reflect local conditions in Arlington using the definitions for hazard frequency and severity listed below.

Table 6: Hazard Risks Summary

Hazard	Frequency		Severity	
	Massachusetts	Arlington	Massachusetts	Arlington
Flooding	High	Medium	Serious to extensive	Serious
Dam failures	Low	Low	Extensive	Extensive
Coastal Hazards	High	N/A	Serious	N/A
Tsunami	Very Low	N/A	Extensive	N/A
Hurricane/Tropical Storm	Medium	Medium	Serious	Serious
Tornadoes	Medium	Low	Serious	Serious
Thunderstorms	High	High	Minor	Minor
Nor'easter	High	High	Minor	Minor
Winter-Blizzard/Snow	High	High	Minor	Minor
Winter-Ice Storms	Medium	Medium	Minor	Minor
Winter Ice Jams	Low	N/A	Serous	N/A
Earthquakes	Very Low	Very Low	Serious	Serious
Landslides	Low	Low	Minor	Minor
Brush fires	Medium	Low	Minor	Minor
Major Urban Fires	Low	N/A	Minor	N/A
Extreme Temperatures	Medium	Medium	Minor	Minor
Drought	Low	Low	Minor	Minor

Source: Massachusetts State Hazard Mitigation Plan, 2013, modified for Arlington

Definitions Used in the Commonwealth of Massachusetts State Hazard Mitigation Plan

Frequency

- **Very low frequency:** events that occur less frequently than once in 100 years (less than 1% per year).
- **Low frequency:** events that occur from once in 50 years to once in 100 years (1% to 2% per year).
- **Medium frequency:** events that occur from once in 5 years to once in 50 years (2% to 20% per year).
- **High frequency**: events that occur more frequently than once in 5 years (Greater than 20% per year).

Severity

- **Minor**: Limited and scattered property damage; limited damage to public infrastructure and essential services not interrupted; limited injuries or fatalities.
- **Serious:** Scattered major property damage; some minor infrastructure damage; essential services are briefly interrupted; some injuries and/or fatalities.
- **Extensive:** Widespread major property damage; major public infrastructure damage (up to several days for repairs); essential services are interrupted from several hours to several days; many injuries and/or fatalities.
- **Catastrophic:** Property and public infrastructure destroyed; essential services stopped; numerous injuries and fatalities.

It should be noted that several of the hazards listed in the Massachusetts State Hazard Mitigation plan are not applicable to the Town of Arlington. Due to its inland location away from the coast, coastal hazards and Tsunamis are not applicable to Arlington. Due to the low incidence of wildfires and the lack Wildland Urban Interface in Arlington, major urban fires are also not applicable to this town. In addition, ice jams are not a hazard for the town. The US Army Corps Ice Jam Database shows no record of ice jams in Arlington. All other natural hazards listed above will be addressed in this plan.

FLOOD-RELATED HAZARDS

Flooding was the most prevalent serious natural hazard identified by local officials in Arlington. Flooding is generally caused by severe rainstorms, thunderstorms, hurricanes, and nor'easters. Global climate change has the potential to exacerbate these issues over time with the potential for changing rainfall patterns leading to heavier storms.

Regionally Significant Storms

There have been a number of major rain storms that have resulted in significant flooding in northeastern Massachusetts over the last fifty years. Significant storms include:

- August 1954
- March 1968
- January 1979
- April 1987
- October 1991
- October 1996
- June 1998
- March 2001
- April 2004
- May 2006
- April 2007
- March 2010
- March 2013
- January 2018
- March 2018

Local data for previous flooding occurrences are not collected by the Town of Arlington. The best available local data is for Middlesex County through the National Environmental Information Center (see Table 7). Middlesex County, which includes the Town of Arlington experienced 65 flood events from 1996 –2019. No deaths or injuries were reported and the total reported property damage in the county was $42 million dollars.

Table 7: Middlesex County Flood Events, 1996 to 2019

Date	Deaths	Injuries	Property Damage ($)
1/29/1996	0	0	0
4/17/1996	0	0	0
9/18/1996	0	0	0
10/21/1996	0	0	0
10/22/1996	0	0	0
3/10/1998	0	0	0
3/11/1998	0	0	0
5/12/1998	0	0	0
6/14/1998	0	0	0
6/15/1998	0	0	0
6/17/1998	0	0	0
4/22/2000	0	0	0
4/23/2000	0	0	0
3/22/2001	0	0	0
3/23/2001	0	0	0
3/31/2001	0	0	0
4/1/2001	0	0	0
4/2/2004	0	0	0
4/15/2004	0	0	0
3/29/2005	0	0	0
10/15/2005	0	0	100,000
10/15/2005	0	0	100,000
10/15/2005	0	0	125,000
5/13/2006	0	0	5,000,000
7/11/2006	0	0	2,000
10/28/2006	0	0	5,000
4/16/2007	0	0	25,000
2/13/2008	0	0	0
5/27/2008	0	0	3,000
6/24/2008	0	0	10,000
6/29/2008	0	0	5,000
8/10/2008	0	0	15,000
8/10/2008	0	0	40,000

Date	Deaths	Injuries	Property Damage ($)
9/6/2008	0	0	15,000
12/12/2008	0	0	20,000
3/14/2010	0	0	26,430,000
3/29/2010	0	0	8,810,000
4/1/2010	0	0	0
8/28/2011	0	0	5,000
10/14/2011	0	0	0
6/8/2012	0	0	0
6/23/2012	0	0	15,000
7/18/2012	0	0	5,000
10/29/2012	0	0	0
6/7/2013	0	0	0
7/1/2013	0	0	0
7/23/2013	0	0	0
9/1/2013	0	0	10,000
3/30/2014	0	0	35,000
7/27/2014	0	0	0
8/31/2014	0	0	0
10/22/2014	0	0	20,000
10/23/2014	0	0	0
12/9/2014	0	0	5,000
12/9/2014	0	0	30,000
5/31/2015	0	0	0
8/4/2015	0	0	0
8/15/2015	0	0	50,000
8/15/2015	0	0	75,000
9/30/2015	0	0	0
4/6/2017	0	0	0
6/27/2017	0	0	1,000
7/12/2017	0	0	1,000,000
7/18/17	0	0	0
8/2/2017	0	0	5,000
10/25/17	0	0	0
10/30/2017	0	0	0
1/12/2018	0	0	0
1/13/2018	0	0	0
4/16/2018	0	0	0
6/25/2018	0		15,000
8/8/2018	0	0	35,000

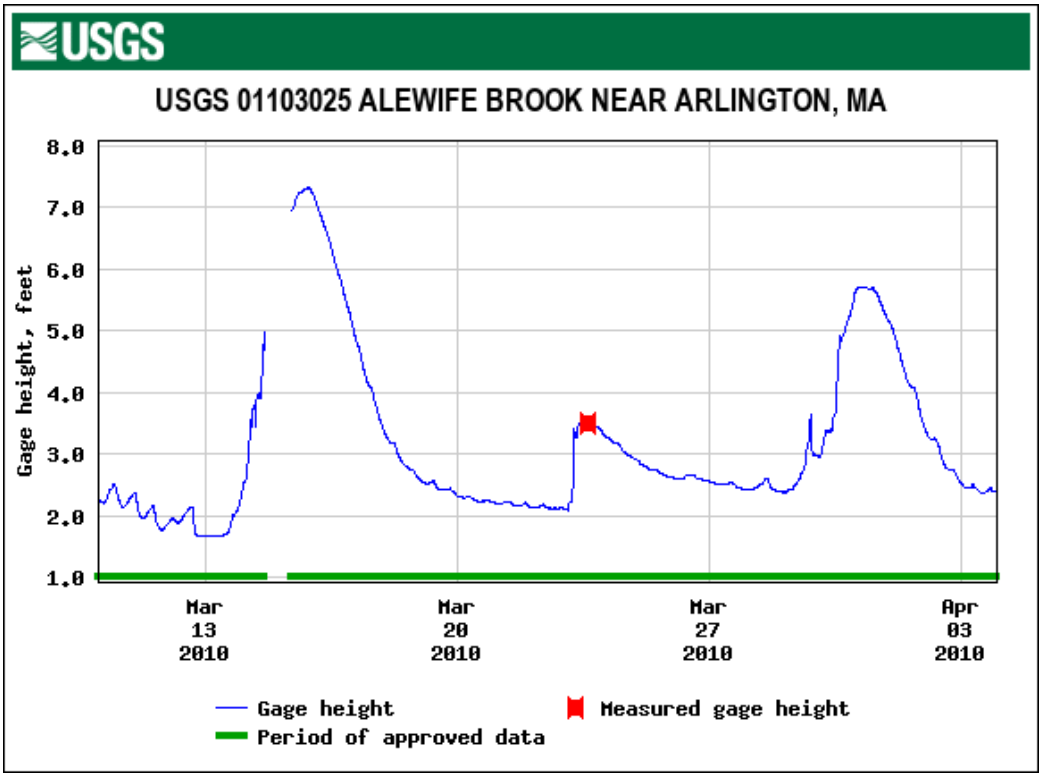
Date	Deaths	Injuries	Property Damage ($)
8/12/2018	0	0	30,000
8/17/2018	0	0	0
10/29/2018	0	0	0
11/3/2018	0	0	0
11/10/2018	0	0	0
7/6/2019	0	0	0
9/2/2019	0	0	300

Source: NOAA, National Environmental Information Center

The most severe recent flooding occurred during March 2010 when a total of 14.83 inches of rainfall accumulation was recorded by the National Weather Service (NWS). The weather pattern that consisted of early springtime prevailing westerly winds that moved three successive storms, combined with tropical moisture from the Gulf of Mexico, across New England. Torrential rainfall caused March 2010 to be one of the wettest months on record.

One indication of the extent of flooding is the measured stream discharge at the nearest USGS streamflow gauging station on Alewife Brook. Figure 2 illustrates that 2010 had the highest gage height, with two peaks at over 7 feet in mid-March and nearly 6 feet in early April. Normal gage height at that time of year would be about two to three feet. Of the total $40.1 million in flood damages recorded for Middlesex County from 1996 to 2019, $35.2 million occurred during the March 2010 flooding (Table 3)

Figure 2: USGS Gage Data for Alewife Brook, March 2010



Source: USGA National Water Information Systgem

Overview of Town-Wide Flooding

Arlington is located within the Mystic River Watershed, which is one to the most urbanized watersheds in the state. Arlington is partially located within the Charles River Watershed. Local rivers and streams are the predominant source of potential flood waters in Arlington. The Town is bordered or crossed by three primary waterways, the upper Mystic River, Mill Brook, and Alewife Brook. In addition, there are several ponds and lakes that have some potential to cause flooding, including Spy Pond, Lower Mystic Lake, and Upper Mystic Lake. Finally, groundwater sourced flooding of basements is relatively common across many different parts of the Town.

Information on flood hazard areas was taken from two sources. The first was the National Flood Insurance Rate Maps. The FIRM flood zones are shown on Map 3 in Appendix A and their definitions are shown below.

Flood Insurance Rate Map Zone Definitions

Zone A (1% annual chance): Zone A is the flood insurance rate zone that corresponds to the 100-year floodplains that are determined in the Flood Insurance Study (FIS) by approximate methods. Because detailed hydraulic analyses are not performed for such areas, no BFEs (base flood elevations) or depths are shown within this zone. Mandatory flood insurance purchase requirements apply.

Zone AE and A1-A30 (1% annual chance): Zones AE and A1-A30 are the flood insurance rate zones that correspond to the 100-year floodplains that are determined in the FIS by detailed methods. In most instances, BFEs derived from the detailed hydraulic analyses are shown at selected intervals within this zone. Mandatory flood insurance purchase requirements apply.

Zone X500 (0.2% annual chance): Zone X500 is the flood insurance rate zone that corresponds to the 500-year floodplains that are determined in the Flood Insurance Study (FIS) by approximate methods. Because detailed hydraulic analyses are not performed for such areas, no BFEs (base flood elevations) or depths are shown within this zone.

Zone VE (1% annual chance): Zone VE is the flood insurance rate zone that corresponds to the 100-year coastal floodplains that have additional hazards associated with storm waves. BFEs derived from the detailed hydraulic analyses are shown at selected intervals within this zone. Mandatory flood insurance purchase requirements apply.

Locally Identified Areas of Flooding

The second source of local flooding information was a review by the local officials on the Arlington Hazard Mitigation Team. The locally identified areas of flooding listed below were identified by the local team as areas where flooding is known to occur. These areas do not necessarily coincide with the flood zones from the FIRM maps. They may be areas that flood due to restrictions in drainage systems or other local conditions rather than location within a riverine flood zone. The numbers of each site correspond to the sites shown Map 8, “Hazard Areas.” The numbers do not reflect priority order.

1) Minuteman Bikeway: During severe storms the Mill Brook jumps the bank here and follows the bike path before flowing back into the creek bed. The stream capacity drops just after the jump- point, which is the likely cause for the flooding. The issue could be addressed through increasing capacity in the stream or perhaps by purposely capturing floodwaters along the bike path.

2) Forest Street: Road flooding at the low point in the underpass under the Minuteman Bikeway.

3) Brattle Street: Road flooding at the low point in the underpass under the Minuteman Bikeway.

4) Colonial Village: Parking lot and first floor of apartments flood. Flooding on the property occurs as frequently as every two years.

5) Grove Street: Flooding in Wellington Park, Dudley St apartments, DPW parking lot.

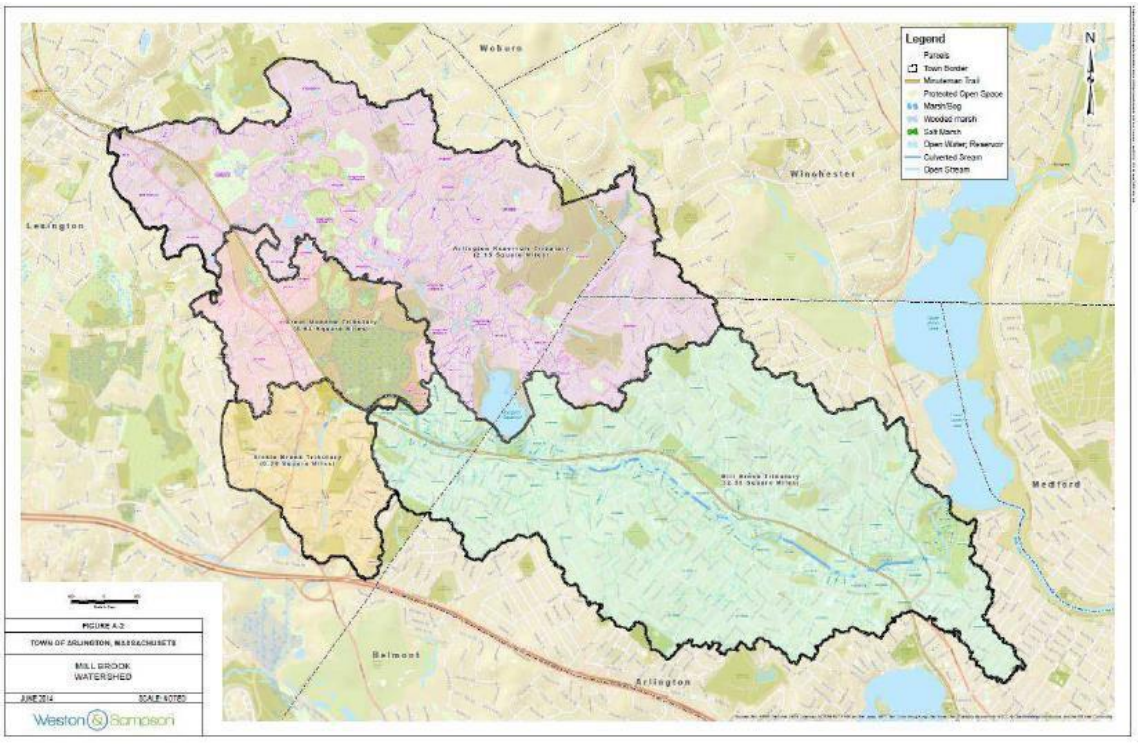
6) Garden Street

7) East Arlington: Extensive flooding from Alewife Brook and tributaries impacts homes.

8) Sunnyside Avenue: Extensive flooding from Alewife Brook impacting homes.

Mill Brook has been the most problematic source of flooding in the town for many years. Under a FEMA Hazard Mitigation Grant (HMGP 1852-32), the Town engaged the firm of Weston and Sampson to conduct a detailed hydrologic and hydraulic analysis of the flooding and evaluate several potential solutions. The Mill Brook flows through town from the Arlington Reservoir on the Lexington town line to the Lower Mystic Lake. The study was conducted in two parts for the upper and lower Mill Brook watershed (see Figure 3).

Figure 3: Upper and Lower Mill Brook Watershed



Source: Weston and Sampson, Mill Brook Evaluation

Flooding problems are most severe in the upper Mill Brook, whose drainage area is upstream of the Arlington Reservoir, mostly in the Town of Lexington (areas on the map in violet, orange, and yellow). The most problematic area is Colonial Village, an apartment complex located immediately downstream of the Arlington Reservoir which has experienced multiple flooding events over many years.

To address this flooding, Weston and Sampson evaluated the installation of an Equalization Culvert and a dam upstream at Fottler Avenue in Lexington, and several other potential storage improvements and flow diversions. The evaluation showed that none of the potential mitigation measures would provide significant reduction of flooding for the 25-year storm at Colonial Village. The report recommends:

1. To abandon the Fottler Avenue Dam construction project as it does not meet the project goals of the FEMA Grant of providing Colonial Village with 25-year flood protection

2. Utilize the existing Mill Brook model to evaluate increasing channel capacity improvement options, and to develop a Mill Brook Capital Improvement Plan for Mill Brook from Colonial Village to Mystic Lake
 - Arlington revised the Mill Brook Corridor Report in 2019 which addresses some of the issues identified in the Weston & Sampson report

The Weston and Sampson report notes "upstream improvements to alleviate flooding at Colonial Village that include providing additional capacity, would require a downstream evaluation of the Lower Mill Brook model to carry improvements downstream as necessary, as increasing capacity of Mill Brook at Colonial Village will exacerbate the existing flooding condition on Lower Mill Brook."

Repetitive Loss Properties

As defined by the Community Rating System (CRS) of the National Flood Insurance Program (NFIP), a repetitive loss property is any property which the NFIP has paid two or more flood claims of $1,000 or more in any given 10-year period since 1978. There are 32 repetitive loss properties in Arlington, including seven single family residences, two multi-family residences, 22 other residential properties, and one business property (see Table 8). These 32 properties have experienced a total of 78 losses totaling $ 1,087,853. While all these properties have had at least two losses, three of them had 3 losses, three others had 4 losses, and one property had 7 losses. For more information on repetitive losses see http://www.fema.gov/business/nfip/replps.shtm.

The repetitive loss properties are all in various categories of FEMA flood hazard zones. Table 8 shows that 11 properties are in an A00 zone, 8 are in an AE zone, 3 are in a C zone, 2 are in an X zone, and one each are in an A and A05 zone. Many of these properties are in or near the Sunnyside Avenue area, the Colonial Village area, and the Lowell Street area. Most are in the Alewife Brook watershed or the Mill Brook watershed.

The impacts of flooding on the Town of Arlington can be significant. Potential damages from flooding in the town were estimated using FEMA's HAZUS-MH program. The results, shown in Table 34, indicate potential damages from a 1% Annual Chance Flood (100-year) at $102.38 million and from a 0.2% Annual Chance Flood (500-year) at $167.8 million.

Table 8: Arlington Repetitive Loss Properties

Property Type	FEMA Flood Zone	Total Payments	Number of losses
Single Family Res.	C	$ 12,610.98	2
Single Family Res.	A	$ 6,391.49	2
Single Family Res.	B	$ 16,927.03	4
Single Family Res.	AE	$ 9,770.10	2
Single Family Res.	X	$ 7,912.41	2
Single Family Res.	A05	$ 21,464.79	2
Single Family Res.	C	$ 6,168.44	2
Total Single Fam.		**$ 81,245.24**	**16**
2-4 Family Res.	X	$ 17,234.20	2
2-4 Family Res.	C	$ 9,442.16	2
Total 2-4 Fam. Res.		**$ 26,676.36**	**4**
Other Residential	AE	$ 35,006.79	2
Other Residential	AE	$ 36,238.99	4
Other Residential	AE	$ 137,873.91	4
Other Residential	AE	$ 134,552.18	2
Other Residential	AE	$ 33,860.30	3
Other Residential	AE	$ 37,500.21	3
Other Residential	AE	$ 38,525.89	2
Other Residential	AE	$ 29,802.61	2
Other Residential	AE	$ 25,424.83	2
Other Residential	AE	$ 12,357.59	2
Other Residential	AE	$ 50,283.56	3
Other Residential	A00	$ 20,281.37	2
Other Residential	A00	$ 19,321.01	2
Other Residential	A00	$ 19,774.60	2
Other Residential	A00	$ 19,724.10	2
Other Residential	A00	$ 20,723.52	2
Other Residential	A00	$ 20,723.52	2
Other Residential	A00	$ 20,331.86	2
Other Residential	A00	$ 20,275.17	2
Other Residential	A00	$ 20,331.86	2
Other Residential	A00	$ 20,331.86	2
Other Residential	A00	$ 19,586.88	2
Total Other Res.		**$ 792,832.61**	**51**
Business Non-Residential	AE	$ 187,099.75	7
Total Business-Non Res		**$ 187,099.75**	**7**
Grand Total Arlington		**$ 1,087,853.96**	**78**

Source: FEMA Repetitive Loss Database, September 30, 2018

Based on the record of previous occurrences flooding events in Arlington are a High frequency event as defined by the Massachusetts State Hazard Mitigation Plan. This hazard may occur more frequently than once in five years, or a greater than 20% chance per year.

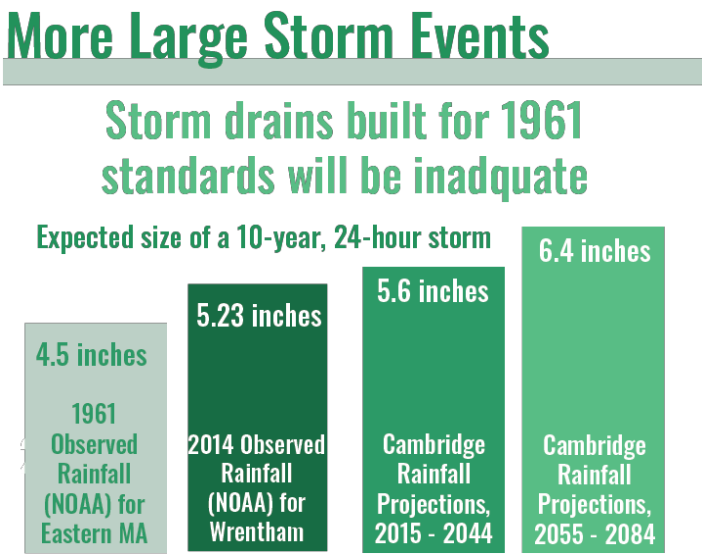
Flooding and Climate Change

With climate change, scientists project an increase in severity and frequency of precipitation events. Because of its location in the urbanized Mystic River watershed, extreme precipitation events and changing precipitation patterns could increase the frequency and severity of flooding in Arlington and other communities in the watershed.

Annual precipitation in Massachusetts has already increased by approximately 10% in the fifty-year period from 1960 to 2010 (MA Climate Change Adaptation Report 2011). Moreover, for the Northeast US, according to the U.S. National Climate Assessment, 2014, there was a 71% increase in the amount of rain that falls in the top 1% of storm events for the period 1958-2012.

Precipitation frequency estimates, which are used to derive stormwater design standards, were published in 196l by the U.S. Commerce Department in a document known as TP-40 (Technical Paper 40). The National Oceanic and Atmospheric Administration (NOAA Atlas 14) has recently published updated estimates. In the future, based on projections developed for the neighboring City of Cambridge, Arlington will likely experience more frequent and intense precipitation events, including an increase in the standard "design storm" from historic levels of 4.5 inches to 6.4 inches by the late 21st century (Figure 4). According to data on ResilientMA.org, by mid- to late century, the region can anticipate 9-10 days with precipitation events with greater than one inch of rain, and an increase in total annual precipitation from 46 to 50 inches.

Figure 4: Design Storm Trends and Projections for the 10-year, 24-hour Storm



Cambridge Climate Vulnerability Assessment. Part 1. April 2017

Dams and Dam Failure

Dam failure can occur as a result of structural failure, independent of a hazard event, or as the result of the impacts of a hazard event such as flooding associated with storms or an earthquake. In the event of a dam failure, the energy of the water stored behind even a small dam can cause loss of life and property damage if there are people or buildings downstream. The number of injuries or fatalities from a dam failure depends on the amount of warning provided to the population and the number of people in the area in the path of the dam's floodwaters.

The MA Department of Conservation and Recreation (DCR) Office of Dam Safety maintains an inventory of dams in Massachusetts. There are two dams in the Town of Arlington, the Upper Mystic Lake Dam and the Arlington Reservoir Dam. These are listed in Table 9, from the DCR dam inventory, and described below.

Table 9: DCR Inventory of Dams in Arlington

Dam Name	Dam #	Owner	Hazard Potential
Upper Mystic Lake Dam	MA00769	MA Dept. of Conservation & Recreation	Significant
Arlington Reservoir Dam	MA00771	Town of Arlington, Department of Public Works	High

Source: MA Dept. of Conservation and Recreation Dam Inventory

DCR provides a classification of dam hazards as summarized below. It should be noted that the hazard potential rating does not refer to the condition of a dam or its likelihood of breaching, but to the potential level of hazard due to the dam's location and the downstream area that could be affected should a breach occur. According to data provided by DCR, one of the dams in Arlington, the Upper Mystic Lake Dam (owned by DCR) is classified as "significant" hazard potential, and the other, Arlington Reservoir Dam (owned by the Town) is considered "high" hazard potential.

DCR Dam Hazard Classification

High: Dams located where failure or mis-operation will likely cause loss of life and serious damage to homes(s), industrial or commercial facilities, important public utilities, main highways(s) or railroad(s).

Significant: Dams located where failure or mis-operation may cause loss of life and damage home(s), industrial or commercial facilities, secondary highway(s) or railroad(s)

Low: Dams located where failure or mis-operation may cause minimal property damage to others. Loss of life is not expected.

Upper Mystic Lake Dam – The Upper Mystic Lake Dam is owned and operated by the Massachusetts Department of Conservation and Recreation (DCR) and divides the Upper and Lower Mystic Lakes on Arlington's northeastern boundary. In 2007-2008 the state conducted a Dam Safety Inspection resulting in an overall condition rating of Poor. Inadequate spillway capacity, erosion, and poorly functioning controls were amongst the findings that resulted in this rating. DCR has moved forward with plans to repair and improve the dam and work has already begun. An inundation map was prepared in order to understand the potential impacts of a dam failure, showing the potential for extensive flooding in the floodplain areas of the Mystic River and Alewife Brook with some of the greatest impacts in the East Arlington area. Completion of the repair work will significantly address the potential risk of dam failure.

Arlington Reservoir Dam – The Arlington Reservoir Dam is owned and operated by the Town of Arlington through the Department of Public Works and is located on the Town's boundary with Lexington (see Figure 5). While the reservoir is no longer used for water supply, the dam continues to be used to maintain the water level for recreational uses. The water level is raised and lowered seasonally and in anticipation of large storm events to help mitigate downstream flooding in Mill Brook. The impoundment size ranges from 19.8 acres in the winter to 28 acres in the summer.

The Town of Arlington has prepared and regularly updates an Emergency Action Plan (EAP) for this dam, as required by state regulations (302 CMR 10.11). The 2017 update reports that the dam was inspected by Weston and Sampson in 2013. The dam was reported in satisfactory condition with no major dam safety deficiencies.

Figure 5: Arlington Reservoir



Source: Arlington Reservoir Dam Emergency Action Plan

The EAP includes a dam break analysis utilizing the National Weather Service computer model "DAMBRK," which is designed to predict wave formation and downstream progression due to a dam failure. The EAP finds that, "although an unlikely event, the sudden release of water due to breaching of the Arlington Reservoir Dam may cause significant flooding in Mill Brook. Mill Brook has been confined to a narrow, man-made channel for the majority of its length from the dam to Lower Mystic Lake. The resultant flooding would fill the low valley along Mill Brook and the flood wave would propagate over 3 miles downstream to its confluence with the Lower Mystic Lake. The DAMBRK model indicates the floodwave is greatly dissipated by the time it reaches Lower Mystic Lake."

Dam failure is a highly infrequent occurrence in Massachusetts, but a severe incident could result in loss of lives and property damage. Since 1984, three dams have failed in or very near to Massachusetts, but a dam failure has never been recorded in the Town of Arlington.

Based on the record of previous occurrences dam failure in Arlington is a Very Low frequency event as defined by the Massachusetts State Hazard Mitigation Plan. This hazard may occur less frequently than once in 100 years (less than 1% chance per year).

Dams and Climate Change

Climate change could further increase the risk of dam failure in several ways. Changing precipitation patterns could alter the flow behavior of a river where the dam was not designed to support, more intense of frequent precipitation events could alter the discharge rates creating greater structural stress to the dam and increasing scouring, erosion, and loss of flood storage capacity in nearby spillways or floodplain wetlands.

WIND-RELATED HAZARDS

Wind-related hazards include hurricanes and tornadoes as well as high winds during severe rainstorms, thunderstorms and microbursts. As with most communities, falling trees that result in downed power lines and power outages are an issue in Arlington. Information on wind-related hazards can be found on Map 5 in Appendix A.

Hurricanes and Tropical Storms

A hurricane is a violent wind and rainstorm with wind speeds of 74-200 miles per hour. A hurricane is strongest as it travels over the ocean and is particularly destructive to coastal property as the storm hits the land. The Town of Arlington's entire area is vulnerable to hurricanes, which occur between June and November. A tropical storm has similar characteristics, but wind speeds are below 74 miles per hour.

Since 1900, Massachusetts has experienced approximately 32 tropical storms, nine Category 1 hurricanes, five Category 2 hurricanes, and one Category 3 hurricane. Significant hurricanes since 1938 are summarized in Table 6.

A hurricane or storm track is the line that delineates the path of the eye of a hurricane or tropical storm. In 1861 a tropical storm track passed through western Arlington; since then there have been no tropical storm or hurricanes recorded to have tracked through the Town. However, the Town can experience the impacts of the wind and rain of hurricanes and tropical storms regardless of whether the storm track passes through the town. The hazard mapping indicates that the 100-year wind speed in Arlington is 110 miles per hour (see Appendix A).

Table 10: Hurricane Records for Massachusetts, 1938-2019

Hurricane Event	Date
Great New England Hurricane	September 21, 1938
Great Atlantic Hurricane	September 14-15, 1944
Hurricane Doug	September 11-12, 1950
Hurricane Carol	August 31, 1954
Hurricane Edna	September 11, 1954
Hurricane Diane	August 17-19, 1955
Hurricane Donna	September 12, 1960
Hurricane Gloria	September 27, 1985
Hurricane Bob	August 19, 1991
Hurricane Earl	September 4, 2010
Tropical Storm Irene	August 28, 2011
Hurricane Sandy	October 29-30, 2012

Source: National Oceanic and Atmospheric Administration

Hurricane intensity is measured according to the Saffir/Simpson scale, which categorizes hurricane intensity linearly based upon maximum sustained winds, barometric pressure, and storm surge potential. These are combined to estimate potential damage. Table 11 provides an overview of the wind speeds, surges, and range of damage caused by different hurricane categories:

Table 11: Saffir/Simpson Scale

Scale No. (Category)	Winds (mph)	Surge (feet)	Potential Damage
1	74 - 95	4 - 5	Minimal
2	96 - 110	6 - 8	Moderate
3	111 - 130	9 - 12	Extensive
4	131 - 155	13 - 18	Extreme
5	> 155	>18	Catastrophic

Source: National Oceanic and Atmospheric Administration

Hurricanes typically have regional impacts beyond their immediate tracks. Falling trees and branches are a significant problem because they can result in power outages when they fall on power lines or block traffic and emergency routes. Hurricanes are a town-wide hazard in Arlington. Potential hurricane damages to Arlington have been estimated using HAZUS-MH. Total damages (building and business interruption) are estimated at $35.7 million for a 100-year hurricane and $151.9 million for 500-year hurricane. Other potential impacts, including displaced households, sheltering needs, and debris generation, are detailed in Table 32.

Based on records of previous occurrences, hurricanes in Arlington are a medium frequency event as defined by the Massachusetts State Hazard Mitigation Plan. This hazard occurs from once in 5 years to once in 50 years, or a 2% to 20% chance per year.

Hurricanes and Climate Change

Climate models suggest that hurricanes will become more intense as warmer ocean waters provide more fuel for the storms. In addition, rainfall amounts associated with hurricanes are predicted to increase because warmer air can hold more water vapor.

Tornadoes

A tornado is a violent windstorm characterized by a twisting, funnel-shaped cloud. These events are spawned by thunderstorms and occasionally by hurricanes, and may occur singularly or in multiples. They develop when cool air overrides a layer of warm air, causing the warm air to rise rapidly. Most vortices remain suspended in the atmosphere. Should they touch down, they become a force of destruction. Some ingredients for tornado formation include:

- ☐ Very strong winds in the mid and upper levels of the atmosphere
- ☐ Clockwise turning of the wind with height (from southeast at the surface to west aloft)
- ☐ Increasing wind speed with altitude in the lowest 10,000 feet of the atmosphere (i.e., 20 mph at the surface and 50 mph at 7,000 feet)
- ☐ Very warm, moist air near the ground with unusually cooler air aloft
- ☐ A forcing mechanism such as a cold front or leftover weather boundary from previous shower or thunderstorm activity

Tornado damage severity is measured by the Fujita Tornado Scale, in which wind speed is not measured directly but rather estimated from the amount of damage. As of February 1, 2007, the National Weather Service began rating tornados using the Enhanced Fujita-scale (EF-scale), which

allows surveyors to create more precise assessments of tornado severity. The Fujita Scale and Enhanced Fujita (EF)-scales are summarized in Table 12 below.

Table 12: Fujita Scale and Enhanced Fujita Scale

Fujita Scale			Derived EF Scale		Operational EF Scale	
F Number	Fastest ¼ mile (mph)	3-second gust (mph)	EF Number	3-second gust (mph)	EF Number	3-second gust (mph)
0	40 – 72	45 – 78	0	65 – 85	0	65 – 85
1	73 – 112	79 – 117	1	86 – 109	1	86 – 110
2	113 – 157	118 – 161	2	110 – 137	2	111 – 135
3	158 – 207	162 – 209	3	138 – 167	3	136 – 165
4	208 – 260	210 – 261	4	168 – 199	4	166 – 200
5	261– 318	262 – 317	5	200 – 234	5	Over 200

Source: Massachusetts State Hazard Mitigation Plan, 2013

The frequency of tornadoes in eastern Massachusetts is low; on average, there are six tornadoes that touchdown somewhere in the Northeast region every year. The strongest tornado in Massachusetts history was the Worcester Tornado in 1953 (NESEC). Remains from the Worcester tornado reached 75 miles across Massachusetts. The most recent tornado events in Massachusetts were in Springfield in 2011 and in Revere in 2014. The Springfield tornado caused significant damage and resulted in four deaths in June of 2011. The Revere tornado touched down in Chelsea just south of Route 16, moved north into Revere's business district along Broadway, and ended near the intersection of Routes 1 and 60. The path was approximately two miles long and 3/8 mile wide, with wind speeds up to 120 miles per hour. Approximately 65 homes had substantial damages and 13 homes and businesses were rendered uninhabitable. In August of 2018 an EF1 tornado hit the town center of Webster, destroying at least two buildings and damaging others

There have been no recorded tornadoes in the Town of Arlington. Since 1955 there have been 18 tornadoes in surrounding Middlesex County recorded by the Tornado History Project. Two of these were F3 tornados, and four were F2. These 18 tornadoes resulted in a total of one fatality and six injuries and $38.8 million in damages, as summarized in Table 13.

Buildings constructed prior to current building codes may be more vulnerable to damages caused by tornadoes. Evacuation of impacted areas may be required on short notice. Sheltering and mass feeding efforts may be required along with debris clearance, search and rescue, and emergency fire and medical services. Key routes may be blocked by downed trees and other debris, and widespread power outages are also typically associated with tornadoes.

Although tornadoes are a potential town-wide hazard in Arlington, tornado impacts are relatively localized compared to Nor'easters and hurricanes. Damages from any tornado in Arlington would greatly depend on the track of the tornado. Generally, the more densely developed corridor along Massachusetts Avenue would likely be subject to more damage in the event of a tornado.

Table 13: Tornado Records for Middlesex County

Date	Fujita	Fatalities	Injuries	Width	Length	Damage
10/24/1955	1	0	0	10	0.1	$500-$5000
6/19/1957	1	0	0	17	1	$5K-$50K
6/19/1957	1	0	0	100	0.5	$50-$500
7/11/1958	2	0	0	17	1.5	$50K-$500K
8/25/1958	2	0	0	50	1	$500-$5000
7/3/1961	0	0	0	10	0.5	$5K-$50K
7/18/1963	1	0	0	50	1	$5K-$50K
8/28/1965	2	0	0	10	2	$50K-$500K
7/11/1970	1	0	0	50	0.1	$5K-$50K
10/3/1970	3	1	0	60	35.4	$50K-$500K
7/1/1971	1	0	1	10	25.2	$5K-$50K
11/7/1971	1	0	0	10	0.1	$50-$500
7/21/1972	2	0	4	37	7.6	$500K-$5M
9/29/1974	3	0	1	33	0.1	$50K-$500K
7/18/1983	0	0	0	20	0.4	$50-$500
9/27/1985	1	0	0	40	0.1	$50-$500
8/7/1986	1	0	0	73	4	$50K-$500K
8/22/2016	1	0	0	400	.85	$10

Source: The Tornado History Project

Based on the record of previous occurrences since 1955, tornado events in Arlington are a low frequency event as defined by the Massachusetts State Hazard Mitigation Plan. This hazard may occur from once in 50 years to once in 100 years (1% to 2% per year).

Tornadoes and Climate Change

According to the *Massachusetts State Hazard Mitigation and Climate Adaptation Plan*, it is possible that severe thunderstorms which can include tornadoes may increase in frequency and intensity. However, scientists have less confidence in the models that seek to project future changes in tornado activity at this time.

Nor'easters

A northeast coastal storm, known as a nor'easter, is typically a large counter-clockwise wind circulation around a low-pressure center. Featuring strong northeasterly winds blowing in from the ocean over coastal areas, nor'easters are relatively common in the winter months in New England occurring one to two times a year. The storm radius of a nor'easter can be as much as 1,000 miles and these storms feature sustained winds of 10 to 40 mph with gusts of up to 70 mph. These storms are accompanied by heavy rain or snow, depending on temperatures. Previous occurrences of nor'easters include the following shown in Table 14, which were listed in the Massachusetts State Hazard Mitigation Plan from 2013 or have occurred since.

Table 14: Nor'easter Events for Massachusetts, 1978 to 2019

Date	Nor'easter Event
February 1978	Blizzard of 1978
October 1991	Severe Coastal Storm ("Perfect Storm")
December 1992	Great Nor'easter of 1992
January 2005	Blizzard/Nor'easter
October 2005	Coastal Storm/Nor'easter
April 2007	Severe Storms, Inland & Coastal Flooding/Nor'easter
January 2011	Winter Storm/Nor'easter
October 2011	Severe Storm/Nor'easter
February 2013	Blizzard of 2013
January 2015	Blizzard of 2015
March 2015	March 2015 Nor'easters
January 2018	January 2018
March 2018	March 2018

Many of the historic flood events identified in the previous section were precipitated by nor'easters, including the "Perfect Storm" event in 1991. The recent blizzards in winter 2018, as well as those in December 2010, February 2013, and January 2015, were large nor'easters that caused significant snowfall amounts in Arlington. Four nor'easters in the winter of 2018 had significant and cumulative impacts on Massachusetts with high winds, flooding, fallen trees and electricity loss.

Arlington is vulnerable to both the wind and precipitation that accompanies nor'easters. High winds can cause damage to structures, fallen trees, and downed power lines, leading to power outages. Intense rainfall can also overwhelm drainage systems, causing localized flooding of rivers and streams as well as urban stormwater ponding and localized flooding. Fallen tree limbs coupled with heavy snow accumulation and intense rainfall can impede local transportation corridors and block access for emergency vehicles.

The entire Town of Arlington could be at risk from the wind, rain, or snow impacts from a nor'easter, depending on the track and radius of the storm. Due to its inland location, the Town would not be subject to coastal hazards associated with nor'easters.

Based on the record of previous occurrences, nor'easters in Arlington are high frequency events as defined by the 2013 Massachusetts State Hazard Mitigation Plan. This hazard may occur more frequently than once in 5 years (greater than 20% per year).

Nor'easters and Climate Change

As with hurricanes, warmer ocean water and air will provide more fuel for storms. According to the SHMCAP it appears that Atlantic coast nor'easters are increasing in frequency and intensity.

Severe Thunderstorms

While less severe than the other types of storms discussed, thunderstorms can lead to localized damage and represent a hazard risk for communities. A thunderstorm typically features lightning, strong winds, and rain and/or hail. Thunderstorms sometime give rise to tornados. On average, these storms are only around 15 miles in diameter and last for about 30 minutes. A severe

thunderstorm can include winds of close to 60 mph and rain sufficient to produce flooding. The town's entire area is potentially subject to severe thunderstorms.

The best available data on previous occurrences of thunderstorms in Arlington is for Middlesex County through the National Centers for Environmental Information. Between the years 2006 and 2019, records indicate 83 thunderstorm events in Middlesex County (Table 15). These storms resulted in a total of $1,691,050 in property damages. There were no injuries or deaths reported. Although not documented by NCEI, the town has also experienced microbursts.

Table 15: Middlesex County Thunderstorm Events, 2006 to 2019

Date	Type	Magnitude	Deaths	Injuries	Damage ($)
4/1/2006	Thunderstorm Wind	50	0	0	8000
5/21/2006	Thunderstorm Wind	61	0	0	95000
6/23/2006	Thunderstorm Wind	50	0	0	30000
7/11/2006	Thunderstorm Wind	50	0	0	10000
7/21/2006	Thunderstorm Wind	50	0	0	35000
7/28/2006	Thunderstorm Wind	50	0	0	15000
8/2/2006	Thunderstorm Wind	50	0	0	15000
5/16/2007	Thunderstorm Wind	50	0	0	0
6/27/2007	Thunderstorm Wind	50	0	0	0
7/6/2007	Thunderstorm Wind	50	0	0	0
7/9/2007	Thunderstorm Wind	50	0	0	0
7/15/2007	Thunderstorm Wind	50	0	0	0
7/28/2007	Thunderstorm Wind	50	0	0	0
7/29/2007	Thunderstorm Wind	50	0	0	0
8/17/2007	Thunderstorm Wind	50	0	0	0
9/8/2007	Thunderstorm Wind	50	0	0	25000
5/27/2008	Thunderstorm Wind	50	0	0	8000
6/10/2008	Thunderstorm Wind	50	0	0	20000
6/23/2008	Thunderstorm Wind	50	0	0	5000
6/24/2008	Thunderstorm Wind	50	0	0	5000
6/27/2008	Thunderstorm Wind	50	0	0	5000
6/29/2008	Thunderstorm Wind	50	0	0	10000
7/1/2008	Thunderstorm Wind	50	0	0	20000
7/2/2008	Thunderstorm Wind	50	0	0	5000
7/3/2008	Thunderstorm Wind	50	0	0	15000
7/19/2008	Thunderstorm Wind	50	0	0	8000
7/20/2008	Thunderstorm Wind	50	0	0	5000
7/27/2008	Thunderstorm Wind	50	0	0	5000
8/3/2008	Thunderstorm Wind	50	0	0	5000
8/7/2008	Thunderstorm Wind	50	0	0	5000
9/9/2008	Thunderstorm Wind	50	0	0	8000
5/9/2009	Thunderstorm Wind	50	0	0	2000
5/24/2009	Thunderstorm Wind	50	0	0	15000
7/7/2009	Thunderstorm Wind	50	0	0	1000
7/8/2009	Thunderstorm Wind	50	0	0	20000
7/26/2009	Thunderstorm Wind	50	0	0	15000
7/31/2009	Thunderstorm Wind	50	0	0	30000
5/4/2010	Thunderstorm Wind	50	0	0	30000
6/1/2010	Thunderstorm Wind	50	0	0	5000
6/3/2010	Thunderstorm Wind	50	0	0	20000
6/5/2010	Thunderstorm Wind	50	0	0	40000
6/6/2010	Thunderstorm Wind	50	0	0	100000
6/24/2010	Thunderstorm Wind	50	0	0	30000
7/12/2010	Thunderstorm Wind	50	0	0	50000
7/19/2010	Thunderstorm Wind	50	0	0	25000
6/1/2011	Thunderstorm Wind	50	0	0	5000
6/9/2011	Thunderstorm Wind	50	0	0	15000
8/2/2011	Thunderstorm Wind	50	0	0	1000

Date	Type	Magnitude	Deaths	Injuries	Damage ($)
8/19/2011	Thunderstorm Wind	50	0	0	15000
6/8/2012	Thunderstorm Wind	50	0	0	25000
6/23/2012	Thunderstorm Wind	45	0	0	5000
7/4/2012	Thunderstorm Wind	50	0	0	10000
7/18/2012	Thunderstorm Wind	70	0	0	350000
9/7/2012	Thunderstorm Wind	50	0	0	10000
9/8/2012	Thunderstorm Wind	40	0	0	3000
6/17/2013	Thunderstorm Wind	50	0	0	25000
6/18/2013	Thunderstorm Wind	45	0	0	10000
6/24/2013	Thunderstorm Wind	45	0	0	3000
7/23/2013	Thunderstorm Wind	50	0	0	20000
7/29/2013	Thunderstorm Wind	50	0	0	5000
7/3/2014	Thunderstorm Wind	50	0	0	75000
7/7/2014	Thunderstorm Wind	87	0	0	100000
7/15/2014	Thunderstorm Wind	50	0	0	25000
7/28/2014	Thunderstorm Wind	50	0	0	50000
9/6/2014	Thunderstorm Wind	50	0	0	15000
5/28/2015	Thunderstorm Wind	45	0	0	5000
8/4/2015	Thunderstorm Wind	50	0	0	40000
8/15/2015	Thunderstorm Wind	50	0	0	25000
2/25/2016	Thunderstorm Wind	50	0	0	30000
3/17/2016	Thunderstorm Wind	45	0	0	5000
7/22/2016	Thunderstorm Wind	50	0	0	14,000
7/23/2016	Thunderstorm Wind	50	0	0	0
8/22/2016	Thunderstorm Wind	50	0	0	0
9/11/2016	Thunderstorm Wind	50	0	0	10,000
5/18/2017	Thunderstorm Wind	50	0	0	0
6/13/2017	Thunderstorm Wind	52	0	0	0
6/23/2017	Thunderstorm Wind	52	0	0	1000
6/27/2017	Thunderstorm Wind	50	0	0	0
7/12/2017	Thunderstorm Wind	50	0	0	0
8/2/2017	Thunderstorm Wind	50	0	0	0
9/6/2017	Thunderstorm Wind	50	0	0	0
5/15/2018	Thunderstorm Wind	40	0	0	0
6/18/2018	Thunderstorm Wind	50	0	0	0
6/25/2018	Thunderstorm Wind	43	0	0	0
7/17/2018	Thunderstorm Wind	50	0	0	3000
7/26/2018	Thunderstorm Wind	50	0	0	5000
8/7/2018	Thunderstorm Wind	50	0	0	3000
8/17/2018	Thunderstorm Wind	50	0	0	4000
9/6/2018	Thunderstorm Wind	50	0	0	2000
10/23/2018	Thunderstorm Wind	46	0	0	10,000
6/30/2019	Thunderstorm Wind	50	0	0	800
7/17/2019	Thunderstorm Wind	50	0	0	7250
7/31/2019	Thunderstorm Wind	50	0	0	2500
8/7/2019	Thunderstorm Wind	50	0	0	800
9/4/2019	Thunderstorm Wind	55	0	0	26700

*Magnitude refers to maximum wind speed (mph)

Source: NOAA, National Centers for Environmental Information (NDEI)

Severe thunderstorms are a town-wide hazard for Arlington. The Town's vulnerability to severe thunderstorms is similar to that of nor'easters. High winds can cause falling trees and power outages, as well as obstruction of key routes and emergency access. Heavy precipitation may also cause localized flooding, both riverine and urban drainage related.

Based on the record of previous occurrences, severe thunderstorms in Arlington are high frequency events as defined by the Massachusetts State Hazard Mitigation Plan. This hazard may occur more frequently than once in 5 years (greater than 20% per year).

Thunderstorms and Climate Change

As noted previously, the intensity of rainfall events has increased significantly, and those trends are expected to continue. The *Massachusetts State Hazard Mitigation and Climate Adaptation Plan* does not specifically address whether climate will affect the intensity or frequency of thunderstorms.

WINTER-RELATED HAZARDS

Winter storms, including blizzards, heavy snow, and ice storms, are the most common and most familiar of the region's hazards that affect large geographic areas. The majority of blizzards and ice storms in the region cause more inconvenience than they do serious property damage, injuries, or deaths. However, periodically, a storm will occur which is a true disaster, and necessitates intense large-scale emergency response. The Blizzard of 1978 is the most outstanding example of this.

Winter storms are a combination hazard because they often involve wind, ice, and heavy snow fall. The National Weather Service defines "heavy snow fall" as an event generating at least four inches of snowfall within a 12 hour period. Winter Storms are often associated with a Nor'easter event, a large counter-clockwise wind circulation around a low-pressure center often resulting in heavy snow, high winds, and rain.

Blizzards and Heavy Snow Events

A blizzard is a winter snowstorm with sustained or frequent wind gusts to 35 mph or more, accompanied by falling or blowing snow reducing visibility to or below ¼ mile. These conditions must be the predominant condition over a 3-hour period. Extremely cold temperatures are often associated with blizzard conditions but are not a formal part of the definition. The hazard created by the combination of snow, wind and low visibility significantly increases, however, with temperatures below 20 degrees.

The Northeast Snowfall Impact Scale (NESIS), developed by Paul Kocin of The Weather Channel and Louis Uccellini of the National Weather Service (Kocin and Uccellini, 2004), characterizes and ranks high impact northeast snowstorms. These storms have large areas of 10-inch snowfall accumulations and greater. NESIS has five categories: Extreme, Crippling, Major, Significant, and Notable. NESIS scores are a function of the area affected by the snowstorm, the amount of snow, and the number of people living in the path of the storm. The largest NESIS values result from storms producing heavy snowfall over large areas that include major metropolitan centers. The NESIS categories are summarized in Table 16 below:

Table 16: NESIS Categories

Category	NESIS	Value Description
1	1 – 2.499	Notable
2	2.5 – 3.99	Significant
3	4 – 5.99	Major
4	6 – 9.99	Crippling
5	10+	Extreme

Source: Massachusetts State Hazard Mitigation Plan, 2013

The most significant winter storm in recent history was the "Blizzard of 1978," which resulted in over three feet of snowfall and multiple day closures of roadways, businesses, and schools. Blizzards and severe winter storms have occurred in the following years as shown in Table 17.

Table 17: Severe Winter Storm Records for Massachusetts

Severe Winter Storm Event	Date
Blizzard of 1978	February 1978
Blizzard	March 1993
Blizzard	January 1996
Severe Snow Storm	March 2001
Severe Snow Storm	December 2003
Severe Snow Storm	January 2004
Severe Snow Storm	January 2005
Severe Snow Storm	April 2007
Severe Snow Storm	December 2010
Severe Snow Storm	January 2011
Blizzard of 2013	February 2013
Blizzard of 2015	January 2015
Severe Snow Storm	March 2018

Source: National Oceanic and Atmospheric Administration

Most recently, in 2015 Massachusetts experienced record-breaking snowfall of 108 inches through a series of blizzards and heavy snow fall in February. This caused major disruptions in transportation, schools, businesses, and other services for several weeks.

The Town of Arlington does not keep local records of winter storms. Data for Middlesex County, which includes Arlington, is the best available data to help understand previous occurrences and impacts of heavy snow events. According to National Climate Data Center (NEIC) records, from 1996 to 2019, Middlesex County experienced 76 heavy snowfall events, resulting in and $229,000 in property damage. No injuries or deaths were reported. See Table 18 for and heavy snow events and impacts in Middlesex County.

Table 18: Heavy Snow Events and Impacts in Middlesex County, 2000 to 2019

Date	Type	Deaths	Injuries	Property Damage ($)
1/13/2000	Heavy Snow	0	0	0
1/25/2000	Heavy Snow	0	0	0
2/18/2000	Heavy Snow	0	0	0
12/30/2000	Heavy Snow	0	0	0
1/20/2001	Heavy Snow	0	0	0
2/5/2001	Heavy Snow	0	0	0
3/5/2001	Heavy Snow	0	0	0
3/9/2001	Heavy Snow	0	0	0
3/30/2001	Heavy Snow	0	0	0
12/8/2001	Heavy Snow	0	0	0
3/20/2002	Heavy Snow	0	0	0
3/16/2004	Heavy Snow	0	0	0
2/24/2005	Heavy Snow	0	0	0
12/13/2007	Heavy Snow	0	0	0

12/16/2007	Heavy Snow	0	0	0
12/19/2007	Heavy Snow	0	0	0
1/14/2008	Heavy Snow	0	0	28000
1/14/2008	Heavy Snow	0	0	20000
1/14/2008	Heavy Snow	0	0	20000
2/22/2008	Heavy Snow	0	0	0
3/1/2008	Heavy Snow	0	0	0
12/19/2008	Heavy Snow	0	0	0
12/20/2008	Heavy Snow	0	0	8000
12/21/2008	Heavy Snow	0	0	0
12/31/2008	Heavy Snow	0	0	0
1/10/2009	Heavy Snow	0	0	0
1/11/2009	Heavy Snow	0	0	0
1/18/2009	Heavy Snow	0	0	0
3/1/2009	Heavy Snow	0	0	0
3/2/2009	Heavy Snow	0	0	0
12/9/2009	Heavy Snow	0	0	15000
12/9/2009	Heavy Snow	0	0	500
12/19/2009	Heavy Snow	0	0	0
12/20/2009	Heavy Snow	0	0	0
1/18/2010	Heavy Snow	0	0	0
2/16/2010	Heavy Snow	0	0	15000
2/23/2010	Heavy Snow	0	0	8000
1/12/2011	Heavy Snow	0	0	0
1/26/2011	Heavy Snow	0	0	0
10/29/2011	Heavy Snow	0	0	30000
12/29/2012	Heavy Snow	0	0	0
2/8/2013	Heavy Snow	0	0	0
2/8/2013	Heavy Snow	0	0	0
2/23/2013	Heavy Snow	0	0	0
3/7/2013	Heavy Snow	0	0	0
3/18/2013	Heavy Snow	0	0	0
12/14/2013	Heavy Snow	0	0	0
12/17/2013	Heavy Snow	0	0	0
1/2/2014	Heavy Snow	0	0	0
1/18/2014	Heavy Snow	0	0	0
2/5/2014	Heavy Snow	0	0	0
2/13/2014	Heavy Snow	0	0	0
2/18/2014	Heavy Snow	0	0	0
11/26/2014	Heavy Snow	0	0	10000
1/24/2015	Heavy Snow	0	0	0
1/26/2015	Heavy Snow	0	0	0
2/2/2015	Heavy Snow	0	0	0
2/8/2015	Heavy Snow	0	0	0
2/14/2015	Heavy Snow	0	0	0
2/5/2016	Heavy Snow	0	0	70000
2/5/2016	Heavy Snow	0	0	5000
3/21/2016	Heavy Snow	0	0	0
4/4/2016	Heavy Snow	0	0	0
12/29/2016	Heavy Snow	0	0	0
3/14/2017	Heavy Snow	0	0	0
11/15/2018	Heavy Snow	0	0	0

Source: NOAA, National Environmental Information Center

Winter storms are a potential town-wide hazard in Arlington, where the average annual snowfall is 48 - 72 inches (see Map 6 in Appendix A). Arlington's vulnerability is primarily related to restrictions to travel on roadways, temporary road closures, school closures, and potential restrictions on emergency vehicle access. The impacts of winter storms are also related to the weight of snow and ice, which can cause roof collapses and cause tree limbs to fall. This in turn can cause property damage and potential injuries. Power outages may also result from fallen trees and utility lines.

A number of public safety issues can arise during heavy snow storms. Impassible streets are a challenge for emergency vehicles and affect residents and businesses. Snow-covered sidewalks force people to walk in streets, which are already less safe due to snow, slush, puddles, and ice. Large piles of snow can also block sight lines for drivers, particularly at intersections. Not all residents are able to clear their properties, especially the elderly. Refreezing of melting snow can cause dangerous roadway conditions. In addition, transit operations may be impacted, as they were in the 2015 blizzard which caused the closure of the MBTA system for one day and limited services on several transit lines for several weeks.

Blizzards are considered to be high frequency events based on past occurrences, as defined by the Massachusetts State Hazard Mitigation Plan. This hazard occurs more than once in five years, with a greater than 20% chance of occurring each year.

Winter Storms and Climate Change

As with nor'easters, warmer ocean water and air will provide more fuel for storms. According to the *Massachusetts State Hazard Mitigation and Climate Adaptation Plan* changing atmospheric patterns favor the development of winter storms.

Ice Storms

The ice storm category covers a range of different weather phenomena that collectively involve rain or snow being converted to ice in the lower atmosphere leading to potentially hazardous conditions on the ground. Hail size typically refers to the diameter of the hailstones. Warnings and reports may report hail size through comparisons with real-world objects that correspond to certain diameters, shown in Table 19.

Table 19: Hail Size Comparisons

Description	Diameter (inches)
Pea	0.25
Marble or mothball	0.50
Penny or dime	0.75
Nickel	0.88
Quarter	1.00
Half dollar	1.25
Walnut or ping pong ball	1.50
Golf ball	1.75
Hen's egg	2.00
Tennis ball	2.50

Baseball	2.75
Tea cup	3.00
Grapefruit	4.00
Softball	4.50

While ice pellets and sleet are examples of these, the greatest hazard is created by freezing rain conditions, which is rain that freezes on contact with hard surfaces leading to a layer of ice on roads, walkways, trees, and other surfaces. The conditions created by freezing rain can make driving particularly dangerous and emergency response more difficult. The weight of ice on tree branches can also lead to falling branches damaging electric lines.

Town-specific data for previous ice storm occurrences are not collected by the Town of Arlington. The best available local data is for Middlesex County through the National Environmental Information Center. Middlesex County, which includes the Town of Arlington, experienced 46 events from 2000 to 2017 (see Table 20).

Table 20: Middlesex County Hail Events, 2000-2019

Date	Event	Magnitude	Deaths	Injuries	Damage ($)
7/18/2000	Hail	1	0	0	0
6/20/2001	Hail	1.75	0	0	0
7/12/2001	Hail	1.5	0	0	0
5/27/2002	Hail	0.75	0	0	0
6/2/2002	Hail	0.75	0	0	0
8/13/2003	Hail	0.75	0	0	0
7/2/2004	Hail	0.75	0	0	0
8/20/2004	Hail	0.88	0	0	75,000
5/21/2006	Hail	0.75	0	0	0
7/11/2006	Hail	1	0	0	0
7/28/2006	Hail	0.75	0	0	0
6/5/2007	Hail	1.25	0	0	0
6/22/2007	Hail	0.75	0	0	0
7/9/2007	Hail	1	0	0	0
7/28/2007	Hail	0.88	0	0	0
6/23/2008	Hail	0.75	0	0	0
6/24/2008	Hail	0.75	0	0	0
7/1/2008	Hail	0.88	0	0	0
7/2/2008	Hail	0.75	0	0	0
8/3/2008	Hail	0.75	0	0	0
8/7/2008	Hail	1	0	0	0
8/10/2008	Hail	0.75	0	0	0
5/24/2009	Hail	1	0	0	0
6/27/2009	Hail	0.88	0	0	0
7/7/2009	Hail	0.75	0	0	0
7/8/2009	Hail	1.75	0	0	0
5/4/2010	Hail	0.75	0	0	0
5/7/2011	Hail	0.75	0	0	0
6/1/2011	Hail	0.75	0	0	0
8/2/2011	Hail	0.75	0	0	0

8/19/2011	Hail	0.75	0	0	0
3/13/2012	Hail	1.25	0	0	0
3/14/2012	Hail	1	0	0	0
6/23/2012	Hail	0.75	0	0	0
7/18/2012	Hail	1	0	0	0
10/30/2012	Hail	1	0	0	0
6/17/2013	Hail	0.75	0	0	0
5/25/2014	Hail	0.75	0	0	0
7/3/2014	Hail	1	0	0	0
8/7/2014	Hail	0.75	0	0	0
9/6/2014	Hail	0.88	0	0	0
8/4/2015	Hail	1	0	0	0
8/15/2015	Hail	0.75	0	0	0
7/23/2016	Hail	.75	0	0	0
6/27/2017	Hail	1.00	0	0	0
8/2/2017	Hail	.75	0	0	0
6/29/19	Hail	.75	0	0	0

*Magnitude refers to diameter of hail stones in inches
Source: NOAA, National Environmental Information Center

Ice storms are considered to be medium frequency events based on past occurrences, and as defined by the 2013 Massachusetts State Hazard Mitigation Plan. This hazard occurs once in five years to once in 50 years, with a 2% to 20% chance of occurring each year.

GEOLOGIC HAZARDS

Geologic hazards include earthquakes, landslides, sinkholes, subsidence, and unstable soils such as fill, peat, and clay. Town officials did not identify any problems with areas of geologic instability, such as sinkholes or subsidence. Although new construction under the most recent building code generally will be built to seismic standards, there are still many structures in town which pre-date the most recent building code. Information on geologic hazards in Arlington can be found on Map 4 in Appendix A.

Earthquakes

Damage in an earthquake stems from ground motion, surface faulting, and ground failure in which weak or unstable soils, such as those composed primarily of saturated sand or silts, liquefy. The effects of an earthquake are mitigated by distance and ground materials between the epicenter and a given location. An earthquake in New England affects a much wider area than a similar earthquake in California due to New England's solid bedrock geology (NESEC).

Seismologists use a magnitude scale known as the Richter scale to express the seismic energy released by each earthquake. The typical effects of earthquakes in various ranges are summarized in Table 21 below.

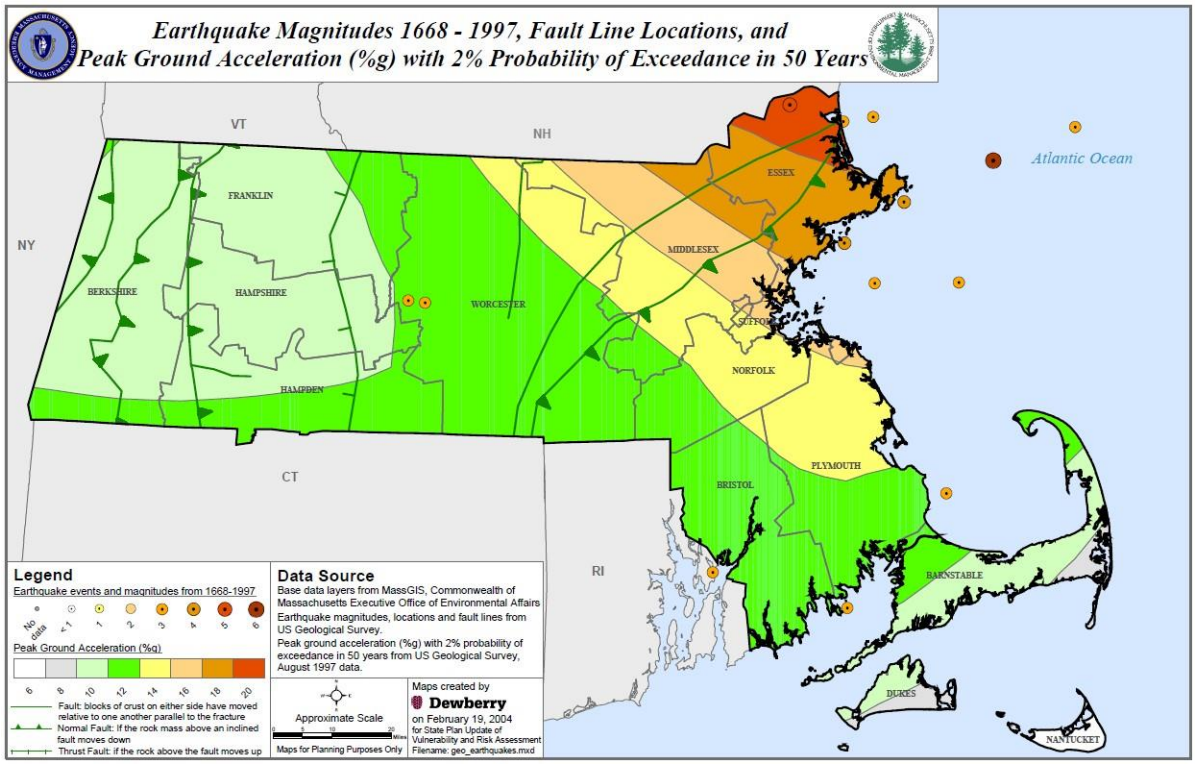
Table 21: Richter Scale and Effects

Richter Magnitudes	Earthquake Effects
Less than 3.5	Generally not felt, but recorded
3.5- 5.4	Often felt, but rarely causes damage
Under 6.0	At most slight damage to well-designed buildings. Can cause major damage to poorly constructed buildings over small regions.
6.1-6.9	Can be destructive in areas up to about 100 km. across where people live.
7.0- 7.9	Major earthquake. Can cause serious damage over larger areas.
8 or greater	Great earthquake. Can cause serious damage in areas several hundred meters across.

Source: Nevada Seismological Library (NSL), 2005

One measure of earthquake risk is ground motion, which is measured as maximum peak horizontal acceleration, expressed as a percentage of gravity (%g). The range of peak ground acceleration in Massachusetts is from 10 %g to 20 %g, with a 2% probability of exceedance in 50 years (see Figure 6). Arlington is in the middle part of the range for Massachusetts, at 16 %g, making it a relatively moderate area of earthquake risk within the state, although the state as a whole is considered to have a low risk of earthquakes compared to the rest of the country. There have been no earthquakes with an epicenter in Arlington (see Map 4 in Appendix A).

Figure 6: State of Massachusetts Earthquake Probability Map



Source: Massachusetts State Hazard Mitigation Plan

Although New England has not experienced a damaging earthquake since 1755, seismologists state that a serious earthquake occurrence is possible. There are five seismological faults in

Massachusetts, but there is no discernible pattern of previous earthquakes along these fault lines. Earthquakes can occur without warning and may be followed by aftershocks. Most older buildings and infrastructure were constructed without specific earthquake resistant design features.

According to the State Hazard Mitigation Plan, New England experiences an average of five earthquakes per year. From 1668 to 2007, 355 earthquakes were recorded in Massachusetts (NESEC). Most have originated from the La Malbaie fault in Quebec or from the Cape Anne fault located off the coast of Rockport. The region has experienced larger earthquakes in the distant past, including a magnitude 5.0 earthquake in 1727 and a 6.0 earthquake that struck in 1755 off the coast of Cape Anne. More recently, a pair of damaging earthquakes occurred near Ossipee, NH in 1940. A 4.0 earthquake centered in Hollis, Maine in October 2012 was felt in the Boston area. Historic records of some of the more significant earthquakes in the region are shown in Table 22.

Table 22: Historical Earthquakes in Massachusetts or Surrounding Area

Location	Date	Magnitude
MA - Cape Ann	11/10/1727	5
MA - Cape Ann	12/29/1727	NA
MA - Cape Ann	2/10/1728	NA
MA - Cape Ann	3/30/1729	NA
MA - Cape Ann	12/9/1729	NA
MA - Cape Ann	2/20/1730	NA
MA - Cape Ann	3/9/1730	NA
MA - Boston	6/24/1741	NA
MA - Cape Ann	6/14/1744	4.7
MA - Salem	7/1/1744	NA
MA - Off Cape Ann	11/18/1755	6
MA - Off Cape Cod	11/23/1755	NA
MA - Boston	3/12/1761	4.6
MA - Off Cape Cod	2/2/1766	NA
MA - Offshore	1/2/1785	5.4
MA - Wareham/Taunton	12/25/1800	NA
MA - Woburn	10/5/1817	4.3
MA - Marblehead	8/25/1846	4.3
MA - Brewster	8/8/1847	4.2
MA - Boxford	5/12/1880	NA
MA - Newbury	11/7/1907	NA
MA - Wareham	4/25/1924	NA
MA - Cape Ann	1/7/1925	4
MA - Nantucket	10/25/1965	NA
MA - Boston	12/27/74	2.3
VA - Mineral	8/23/11	5.8
MA - Nantucket	4/12/12	4.5
ME - Hollis	10/17/12	4.0
CT-Wauregan	1/12/2015	3.3
CT-Wauregan	1/12/2015	2.6
NH-East Kingston	2/15/2018	2.7

Source: City of Boston, Hazard Identification and Risk Assessment

Earthquakes are a hazard with multiple impacts beyond the obvious building collapse. Buildings may suffer structural damage which may or may not be readily apparent. Earthquakes can cause major damage to roadways, making emergency response difficult. Water lines and gas lines can break, causing flooding and fires. Another potential vulnerability is equipment within structures. For example, a hospital may be structurally engineered to withstand an earthquake, but if the equipment inside the building is not properly secured, the operations at the hospital could be severely impacted during an earthquake. Earthquakes can also trigger landslides.

Earthquakes are a potential town-wide hazard in Arlington. Much of the development in town pre-dates the current building code and could be vulnerable in the event of a severe earthquake. Potential earthquake damages to Arlington have been estimated using HAZUS-MH. Total building damages are estimated at $857.6 million for a 5.0 magnitude earthquake and $6.32 billion for a 7.0 magnitude earthquake. Other potential impacts such as evacuation needs and debris removal are detailed in Table 33.

According to the Boston College Weston Observatory, in most parts of New England, there is a one in ten chance that a potentially damaging earthquake will occur in a 50 year time period. The Massachusetts State Hazard Mitigation Plan classifies earthquakes as "very low" frequency events that occur less frequently than once in 100 years, or a less than 1% chance per year.

Landslides

According to the U.S. Geological Survey, “The term landslide includes a wide range of ground movement, such as rock falls, deep failure of slopes, and shallow debris flows. Although gravity acting on an over steepened slope is the primary reason for a landslide, there are other contributing factors.” Among the contributing factors are: erosion by rivers or ocean waves over steepened slopes; rock and soil slopes weakened through saturation by snowmelt or heavy rains; earthquake created stresses that make weak slopes fail; excess weight from accumulation of rain or snow; and stockpiling of rock or ore from waste piles or man-made structures.

Landslides can result from human activities that destabilize an area or can occur as a secondary impact from another natural hazard, such as flooding. In addition to structural damage to buildings and the blockage of transportation corridors, landslides can lead to sedimentation of water bodies. Typically, a landslide occurs when the condition of a slope changes from stable to unstable. Natural precipitation such as heavy snow accumulation, torrential rain, and run-off may saturate soil, creating instability enough to contribute to a landslide. A lack of vegetation and root structure that normally stabilize soil can destabilize hilly terrain.

There is no universally accepted measure of landslide extent, but it has been represented as a measure of the destructiveness. Table 23 below summarizes the estimated intensity for a range of landslides. Fast moving rock falls have the highest intensity while slow moving landslides have the lowest intensity.

All the Town of Arlington has been classified as having a low risk for landslides (see Map 4, Appendix A). Local officials did not identify any significant issues related to landslides. Should a landslide occur in the future, the type and degree of impacts would be highly localized. The Town’s vulnerabilities could include damage to structures, damage to transportation and other infrastructure, and localized road closures. Injuries and casualties, while possible, would be unlikely given the low extent and impact of landslides in Arlington.

Table 23: Landslide Volume and Velocity

Estimated Volume (m^3)	Expected Landslide Velocity		
	Fast moving (rock fall)	**Rapid moving (debris flow)**	**Slow moving (slide)**
<0.001	Slight intensity	--	--
<0.5	Medium intensity	--	--
>0.5	High intensity	---	--
<500	High intensity	Slight intensity	--
500-10,000	High intensity	Medium intensity	Slight intensity
10,000 – 50,000	Very high intensity	High intensity	Medium intensity
>500,000	--	Very high intensity	High intensity
>500,000	--	--	Very high intensity

Source: *A Geomorphological Approach to the Estimation of Landslide Hazards and Risks in Umbria, Central Italy*, M. Cardinali et al, 2002

Based on past occurrences and the Massachusetts Hazard Mitigation Plan, landslides are low frequency events that can occur once in 50 to100 years (a 1% to 2% chance of occurring each year).

FIRE-RELATED HAZARDS

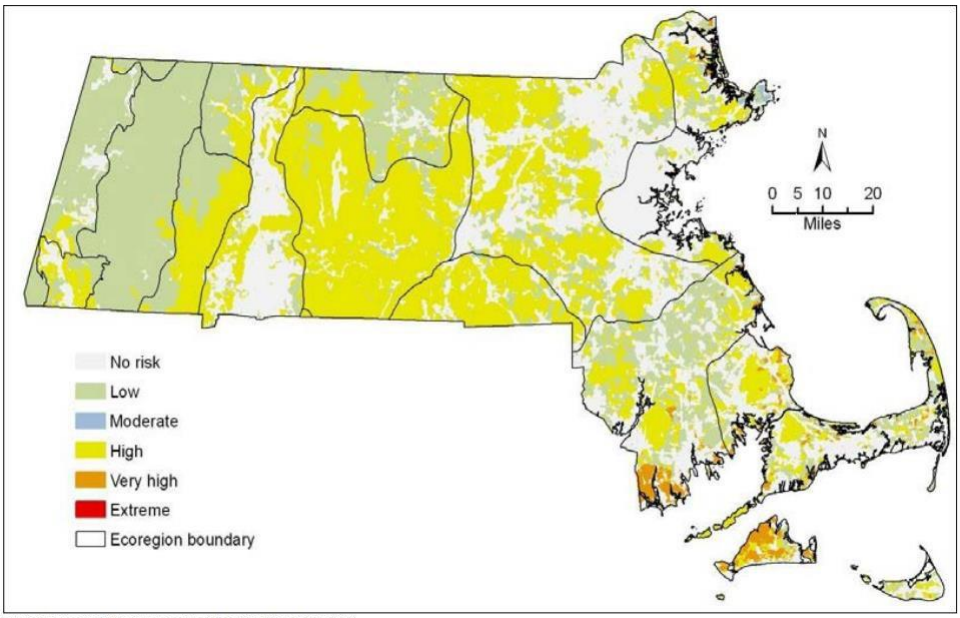
A brush fire is an uncontrolled fire occurring in a forested or grassland area. In the Boston Metro region, these fires rarely grow to the size of a wildfire as seen more typically in the western U.S. As their name implies, these fires typically burn no more than the underbrush of a forested area. There are three different classes of wild fires: (1) surface fires are the most common type and burn along the floor of a forest, moving slowly and killing or damaging trees; (2) ground fires are usually started by lightning and burn on or below the forest floor; (3) crown fires spread rapidly by wind, jumping along the tops of trees.

Wildfire season can begin in March and usually ends in late November. The majority of wildfires typically occur in April and May, when most vegetation is void of any appreciable moisture, making them highly flammable. Once "green-up" takes place in late May to early June, the fire danger usually is reduced somewhat. A wildfire differs greatly from other fires by its extensive size, the speed at which it can spread out from its original source, its potential to unexpectedly change direction, and its ability to jump gaps such as roads, rivers and fire breaks.

These fires can present a hazard where there is the potential for them to spread into developed or inhabited areas, particularly residential areas where sufficient fuel materials might exist to allow the fire the spread into homes. Protecting structures from fire poses special problems and can stretch firefighting resources to the limit. If heavy rains follow a fire, other natural disasters can occur, including landslides, mudflows, and floods. If the wildfire destroys the ground cover, then erosion becomes one of several potential problems.

According the National Wildfire Risk Assessment, Arlington is located in an area that has no significant risk of wildfires (Figure 7)

Figure 7: Massachusetts Wildfires Risk Areas



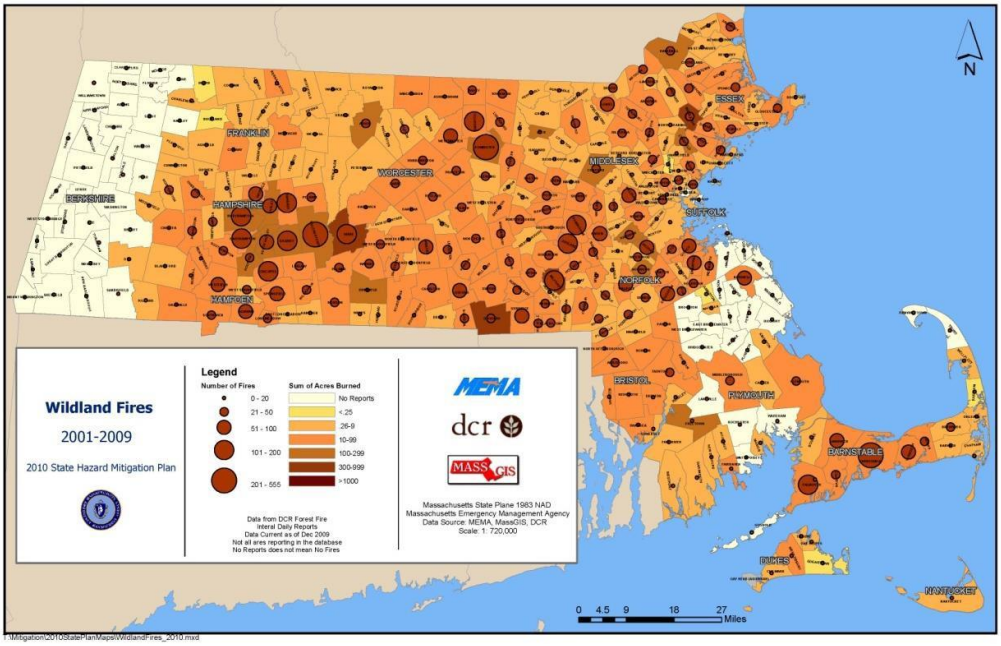
Source: Northeast Wildfire Risk Assessment Geospatial Work Group, 2009

Source: Northeast Wildfire Risk Assessment Geospatial Work Group, 2009

Potential Fire Hazards In Arlington

Wildfires in Massachusetts are measured by the number of fires and acres burned. The most recent data available for wildfires in Massachusetts, shown in Figure 8, indicates that the wildfire extent in Arlington ton consists of 0 to 20 recordable fires from 2001 to 2009, with no recorded acres burned.

Figure 8: Massachusetts Wildfires, 2001 to 2009



Source: Massachusetts State Hazard Mitigation Plan

Based on input from the Local Hazard Mitigation Team which includes the Arlington Fire Chief, brush fires in Arlington are relatively rare and have generally occurred in only one isolated forested area in the Town off of Thorndike Street in an area called Thorndike Fields. For this plan update, the Fire Chief also identified a second potential fire hazard site, near the intersection of Summer Street and Washington Street. These two sites are identified as areas 9 and 10 on Map 8, "Hazard Areas" in Appendix A. None of the previous brush fires have resulted in major property damage and no loss of life has ever been reported. These brush fires are localized and are likely a result of either someone setting a fire or the careless disposal of lit material such as cigarettes or matches.

Potential damages from wildfires in Arlington would depend on the extent and type of land affected. Potential vulnerabilities to wildfires include damage to structures and other improvements and impacts on natural resources such as town conservation land. Smoke and air pollution from wildfires can be a health hazard, especially for sensitive populations including children, the elderly, and those with respiratory and cardiovascular diseases. However, given the limited areas in town potentially subject to brush fires, and the lack of a Wildfire-Urban Interface, significant damages are unlikely. The town has not experienced significant damages due to wildfire in the past.

Based on past occurrences documented in the Massachusetts Hazard Mitigation Plan, brushfires are of Medium frequency, events that occur from once in 5 years to once in 50 years (2% to 20% probability per year).

Wildfires and Climate Change

Drought and warmer temperatures may lead to an increase in wildfires if forests dry out and become more flammable.

EXTREME TEMPERATURES

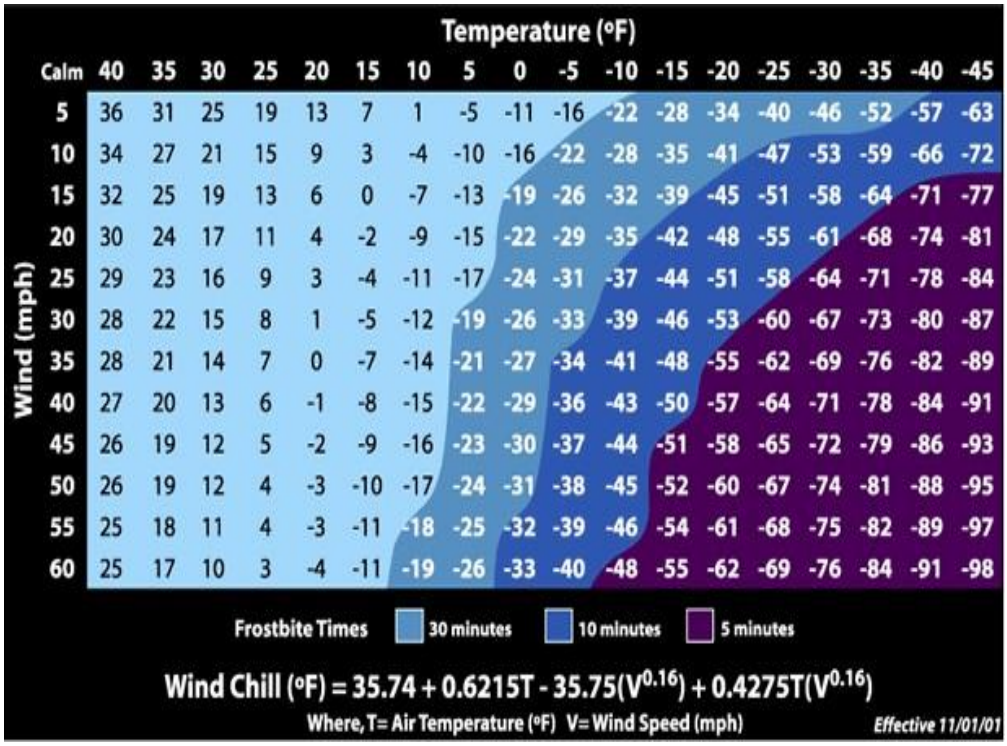
Extreme temperatures occur when either high temperature or low temperatures relative to average local temperatures occur. These can occur for brief periods of time and be acute, or they can occur over long periods of time where there is a long stretch of excessively hot or cold weather.

Arlington has four well-defined seasons. The seasons have several defining factors, with temperature one of the most significant. Extreme temperatures can be defined as those that are far outside of the normal seasonal ranges for Massachusetts. The average temperature for winter (December to February) in Massachusetts is 31.8°F. The average temperature for summer (June to August) is 71°F. Extreme temperatures are a town-wide hazard.

EXTREME COLD

For extreme cold, temperature is typically measured using the Wind Chill Temperature Index, which is provided by the National Weather Service (NWS). The latest version of the index was implemented in 2001 and is meant to show how cold conditions feel on unexposed skin and can lead to frostbite. The index is provided in Figure 9 below.

Figure 9: Wind Chill Temperature Index and Frostbite Risk



Source: National Weather Service

Extreme cold is relative to the normal climatic lows in a region. Temperatures that drop decidedly below normal and wind speeds that increase can cause harmful wind chill factors. The wind chill is the apparent temperature felt on exposed skin due to the combination of air temperature and wind speed. Extreme cold is a dangerous situation that can result in health emergencies for susceptible people, such as those without shelter, those who are stranded, or those who live in homes that are poorly insulated or without heat. The elderly and people with disabilities are often most vulnerable. In Arlington, 16.4 percent of the population are over 65 and 9.0 percent of the population has a disability

The best available local data on extreme cold in Arlington are for Middlesex County, through the National Environmental Information Center (NEIC). There are three extreme cold events on record since 2000 for the county, which caused no deaths, no injuries, or property damage (Table 24).

Table 24: Middlesex County Extreme Cold and Wind Chill Occurrences

Date	Deaths	Injuries	Damage ($)
2/15/2015	0	0	0
2/16/2015	0	0	0
2/14/2016	0	0	0

Source: NOAA, National Environmental Information Center

EXTREME HEAT

A heat wave in Massachusetts is defined as three or more consecutive days above 90°F. Another measure used for identifying extreme heat events is through a Heat Advisory from the NWS. These advisories are issued when the heat index (Figure 10) is forecasted to exceed 100°F for two or more hours; an excessive heat advisory is issued if the forecast predicts the temperature to rise above 105°F.

Figure 10: Heat Index Chart

Relative Humidity (%) \ Temperature (°F)	80	82	84	86	88	90	92	94	96	98	100	102	104	106	108	110
40	80	81	83	85	88	91	94	97	101	105	109	114	119	124	130	136
45	80	82	84	87	89	93	96	100	104	109	114	119	124	130	137	
50	81	83	85	88	91	95	99	103	108	113	118	124	131	137		
55	81	84	86	89	93	97	101	106	112	117	124	130	137			
60	82	84	88	91	95	100	105	110	116	123	129	137				
65	82	85	89	93	98	103	108	114	121	128	136					
70	83	86	90	95	100	105	112	119	126	134						
75	84	88	92	97	103	109	116	124	132							
80	84	89	94	100	106	113	121	129								
85	85	90	96	102	110	117	126	135								
90	86	91	98	105	113	122	131									
95	86	93	100	108	117	127										
100	87	95	103	112	121	132										

Category	Heat Index	Health Hazards
Extreme Danger	130 °F – Higher	Heat Stroke or Sunstroke is likely with continued exposure.
Danger	105 °F – 129 °F	Sunstroke, muscle cramps, and/or heat exhaustion possible with prolonged exposure and/or physical activity.
Extreme Caution	90 °F – 105 °F	Sunstroke, muscle cramps, and/or heat exhaustions possible with prolonged exposure and/or physical activity.
Caution	80 °F – 90 °F	Fatigue possible with prolonged exposure and/or physical activity.

Source: National Weather Service

The best available local data for extreme heat in Arlington are for Middlesex County, through the National Environmental Information Center. Since 2010, there have been two excessive heat days, which resulted in one death, no injuries, and no property damage (Table 25).

Table 25: Middlesex County Extreme Heat Occurrences

Date	Deaths	Injuries	Damage ($)
7/6/2010	0	0	0
7/5/2013	1	0	0
Total	**1**	**0**	**0**

Source: NOAA, National Environmental Information Centers

Extreme heat poses many health risks. Prolonged exposure to high temperatures can cause heat-related illnesses, such as heat cramps, heat exhaustion, heat stroke, and in severe cases, death. Heat exhaustion is the most common heat-related illness and if untreated, it may progress to heat stroke. Prolonged heat exposure can also exacerbate pre-existing conditions, including respiratory illnesses, cardiovascular disease, and mental illnesses.

In Arlington, 16.4% of the people are over 65 years old. Senior adults are at particularly high risk to heat for several reasons. They may not adjust to sudden changes in temperature as quickly as younger people, they are more likely to have a chronic medical condition whose symptoms may be exacerbated by heat, and they are more likely to be taking prescription medications that affect their ability to control body temperature.

Power failures can occur during heat waves, where intense heat spikes electricity demand and aging infrastructure. This occurred in June 2017 in the neighboring Town of Belmont, where intense heat causes a spike in electricity demand. With its aging infrastructure, the combination of these factors led to equipment failure. Loss of electricity not only impair a resident's ability to cool, but can cause significant medical emergency for those who require electronic medical equipment or from food-borne illnesses from contaminated food, ingested after loss of refrigeration.

Extreme temperatures are medium frequency events based on past occurrences, and as defined by the Massachusetts State Hazard Mitigation Plan. Both extreme cold and hot weather events occur between once in five years to once in 50 years, or a 2% to 20% chance of occurring each year. However, due to climate change, this will likely change in the future, as described in the following section.

HEAT ISLANDS

MAPC performed a heat island analysis to ascertain the areas of Arlington that are most at risk to extreme heat. A heat island is defined as an area whose temperature ranges more than 1.8-.54° F greater during the daytime or up to 22° F greater in the evening than the surrounding areas. MAPC used LANDSAT satellite imagery at 30 m resolution to ascertain land surface temperatures during the daytime in the warmest months of 2016. This analysis is shown in Map 9 in Appendix A. The hottest 5% areas, or "hot spots," generally follow the Massachusetts Avenue corridor, which is the most densely developed part of town with the greatest amount of impervious surfaces. There are also "hot spots" in parts of East Arlington, in a relatively dense residential area north and west of Massachusetts Avenue. Map 10 also shows the range of tree cover across the town. Areas with higher tree coverage are the coolest areas on the heat island map, showing the clear benefits of trees to mitigate extreme heat.

Extreme Temperatures and Climate Change

Extreme cold events are predicted to decrease in the future, while extreme heat is projected to increase.

Global temperatures increased by nearly 2 degrees in the last century and even small changes in temperature have widespread and significant changes to our climatic system. For example, the northeast has experienced a 10-day increase in the growing season in since 1980.

Future temperature projections for the Boston Harbor watershed, which includes Arlington, are shown below (Table 26). The projections show an increase in average temperatures and an increasing likelihood of heat waves, as indicated by the increased number of days over 90 and 100 degrees each year.

Table 26. Projected Temperature Change for the Boston Harbor Watershed

Temperature (F°)	Observed Baseline 1971-2000	Projected 2020-2049	Projected 2040-2069	Projected 2060-2089	Projected 2080-2099
Annual temperature	50°	52-54°	53-56°	53-59°	54-61°
Days over 90 ° (days/year)	8	13-23	16-37	17-57	19-75
Days over 100 ° (days/year)	0.05	.29-2	.37-4	.52-9	.60-16

The projected increase in extreme heat and heat waves is the source of one of the key health concerns related to climate change. Prolonged exposure to high temperatures can cause heat-related illnesses, such as heat cramps, heat exhaustion, heat stroke, and death. Heat exhaustion is the most common heat-related illness and if untreated, it may progress to heat stroke. People who perform manual labor, particularly those who work outdoors, are at increased risk for heat-related illnesses. Prolonged heat exposure and the poor air quality and high humidity that often accompany heat waves can also exacerbate pre-existing conditions, including respiratory illnesses, cardiovascular disease, and mental illnesses.

The senior population is often at elevated risk due to a high prevalence of pre-existing and chronic conditions. People who live in older housing stock (as is often the case with public housing), and in housing without air conditioning have increased vulnerability to heat-related illnesses. Power failures are more likely to occur during heat waves, affecting the ability of residents to remain cool during extreme heat. Individuals with pre-existing conditions and those who require electric medical equipment may be at increased risk during a power outage.

DROUGHT

Drought is a temporary irregularity in precipitation and differs from aridity since the latter is restricted to low rainfall regions and is a permanent feature of climate. Drought is a period characterized by long durations of below normal precipitation. Drought conditions occur in virtually all climatic zones, yet its characteristics vary significantly from one region to another since it is relative to the normal precipitation in that region. Drought can affect agriculture, water supply, aquatic ecology, wildlife, and plant life.

In Massachusetts, droughts are caused by the prevalence of dry northern continental air and a decrease in coastal- and tropical-cyclone activity. During the 1960s, a cool drought occurred because dry air from the north caused lower temperatures in the springs and summers of 1962 through 1965. The northerly winds drove frontal systems to sea along the southeast coast and prevented the northeastern states from receiving moisture (U.S. Geological Survey). This is considered the record drought in Massachusetts modern history.

Average annual precipitation in Massachusetts is 44 inches per year, with approximately three to four-inch average amounts for each month of the year. Regional monthly precipitation ranges from zero to 17 inches and statewide annual precipitation ranges from 30 to 61 inches. Thus, in

the driest calendar year (1965), the statewide precipitation total of 30 inches was only 68% of the average total.

Although Massachusetts is relatively small, it has a number of distinct regions that experience significantly different weather patterns and react differently to the amounts of precipitation they receive. The DCR precipitation index divides the state into six regions: Western, Central, Connecticut River Valley, Northeast, Southeast, and Cape and Islands. Arlington is located in the Northeast region. Drought is a potential town-wide hazard in Arlington.

Five levels of drought have been developed to characterize drought severity: Normal, Advisory, Watch, Warning, and Emergency. These levels are based on conditions of natural resources and provide information on the current status of water resources. The levels provide a framework from which to take actions to assess, communicate, and respond to drought conditions.

The drought levels begin with a normal situation where data are routinely collected and distributed, move to heightened vigilance with increased data collection during an advisory, and to increased assessment and proactive education during a watch. Water restrictions might be appropriate at the watch or warning stage, depending on the capacity of each individual water supply system. A warning level indicates a severe situation and the possibility that a drought emergency may be necessary. A drought emergency is one in which mandatory water restrictions or use of emergency supplies become necessary. Drought levels are used to coordinate both state agency and local response to drought situations.

As dry conditions can have a range of different impacts, a number of drought indices are available to assess these various impacts. Massachusetts uses a multi-index system that takes advantage of several of these indices to determine the severity of a given drought or extended period of dry conditions. Drought level is determined monthly based on the number of indices which have reached a given drought level. Drought levels are declared on a regional basis for each of the six regions in Massachusetts. County by county or watershed-specific determinations may also be made. A determination of drought level is based on seven indices:

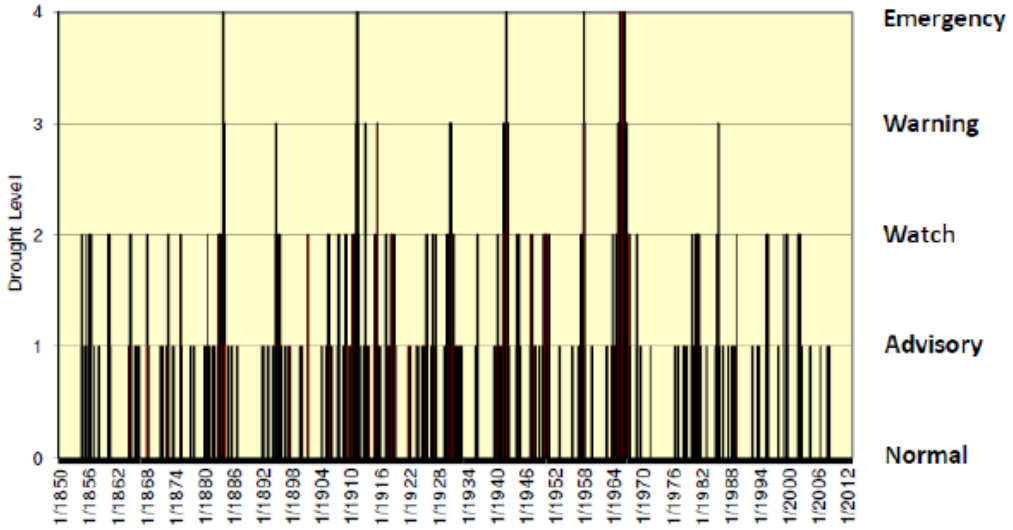
1. Standardized Precipitation Index (SPI) reflects soil moisture and precipitation.
2. Crop Moisture Index (CMI) reflects soil moisture conditions for agriculture.
3. Keetch Byram Drought Index (KBDI) is designed for fire-potential assessment.
4. Precipitation Index is a comparison of measured precipitation to normal precipitation.
5. The Groundwater Level Index is based on the number of consecutive month's groundwater levels below normal (lowest 25% of period of record).
6. The Stream flow Index is based on the number of consecutive months that stream flow levels are below normal (lowest 25% of period of record).
7. The Reservoir Index is based on the water levels of small, medium, and large index reservoirs across the state, relative to normal conditions for each month.

Determinations regarding the end of a drought or reduction of the drought level focus on two key drought indicators: precipitation and groundwater levels. These two factors have the greatest long-term impact on stream flow, water supply, reservoir levels, soil moisture, and potential for forest fires.

Arlington does not collect data relative to drought events. Because drought tends to be a regional hazard, this plan references state data as the best available data for drought. The statewide scale is a composite of the six regions in the state. Regional composite precipitation values are based on monthly values from six stations, and three stations in the smaller regions (Cape and Islands and West regions).

Figure 11 depicts the incidents of drought levels' occurrence in Massachusetts since 1850 using the Standardized Precipitation Index (SPI) parameter alone. On a monthly basis, the state was in a Drought Watch to Emergency condition 11% of the time since 1850.

Figure 11: Statewide Drought Levels using SPI Thresholds since 1850



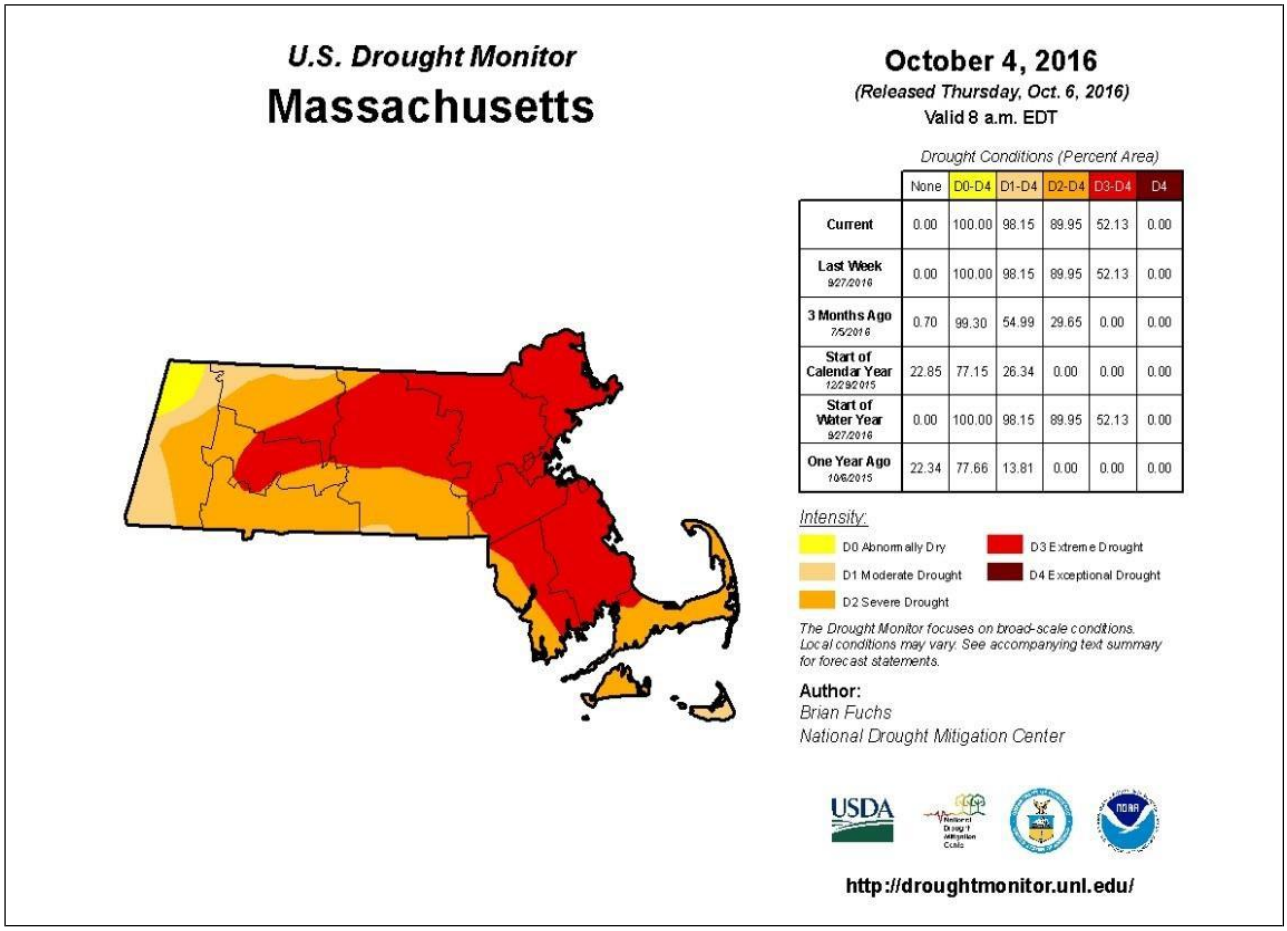
Source: Massachusetts State Drought Management Plan 2013

Drought emergencies have been reached infrequently, with five events occurring in the period between 1850 and 2012: 1883, 1911, 1941, 1957, and 1965 to 1966. The drought period between 1965 and 1966 is viewed as the most severe drought to have occurred in modern times in Massachusetts because of its long duration. On a monthly basis over the 162-year period of record, there is a 1% chance of being in a drought emergency.

Drought warning levels not associated with drought emergencies have occurred five times, in 1894, 1915, 1930, 1985, and 2016. On a monthly basis over the 162-year period of record, there is a 2% chance of being in a drought warning. Arlington was under a drought warning from August to December 2016. By the fall of 2016, more than half of Massachusetts was experiencing severe drought conditions (Figure 12).

Drought watches not associated with higher levels of drought generally have occurred in three to four years per decade between 1850 and 1950. In the 1980s, there was a lengthy drought watch level of precipitation between 1980 and 1981, followed by a drought warning in 1985. A frequency of drought watches at a rate of three years per decade resumed in the 1990s (1995, 1998, and 1999). In the 2000s, drought watches occurred in 2001 and 2002. The overall frequency of being in a drought watch is 8% on a monthly basis over the 162-year period of record. Table 27 summarizes the chronology of major droughts since 1879.

Figure 12: Drought Conditions in Massachusetts, October 2016



Source: US Drought Monitor, National Drought Mitigation Center

Potential damages of a severe long-term drought could include losses of landscaped areas if outdoor watering is restricted and potential loss of business revenues if water supplies were severely restricted for a prolonged period. As this hazard has never occurred to such a severe degree in Arlington, there are no data or estimates of potential damages, but under a severe long-term drought scenario it would be reasonable to expect a range of potential damages of several million dollars. Another potential vulnerability of droughts could be increased risk of wildfires, although in Arlington there are extremely limited areas subject to brush fires.

The state has experienced emergency droughts five times since 1850. Even though regional drought conditions may occur at a different interval than state data indicates, droughts remain primarily regional and state phenomena in Massachusetts. Emergency drought conditions over the 162 period of record in Massachusetts are a low frequency natural hazard event that can occur from once in 50 years to once in 100 years (1% to 2% chance per year) as defined by the 2013 Massachusetts State Hazard Mitigation Plan.

Table 27: Chronology of Major Droughts in Massachusetts

Table 4-13: Droughts in Massachusetts Based on Instrumental Records

Date	Area Affected	Recurrence Interval (years)	Remarks	Reference
1879-83	—	—		Kinnison (1931) as cited in USGS 1989
1908-12	—	—		Kinnison (1931) as cited in USGS 1989
1929-32	Statewide	10 to >50	Water-supply sources altered in 13 communities. Multistate.	USGS 1989
1939-44	Statewide	15 to >50	More severe in eastern and extreme western Massachusetts. Multistate.	USGS 1989
1957-59	Statewide	5 to 25	Record low water levels in observation wells, northeastern Massachusetts.	USGS 1989
1961-69	Statewide	35 to >50	Water-supply shortages common. Record drought. Multistate.	USGS 1989
1980-83	Statewide	10 to 30	Most severe in Ipswich and Taunton River basins; minimal effect in Nashua River basin. Multistate.	USGS 1989
1985-88	Housatonic River basin	25	Duration and severity as yet unknown. Streamflow showed mixed trends elsewhere.	USGS 1989
1995	—	—	Based on statewide average precipitation	DMP 2013
1998-1999	—	—	Based on statewide average precipitation	DMP 2013
Dec 2001 - Jan 2003	Statewide	—	Level 2 drought (out of 4 levels) was reached statewide for several months	DCR 2017
Oct 2007 - Mar 2008	Statewide except West and Cape and Islands regions	—	Level 1 drought (out of 4 levels)	DCR 2017
Aug 2010 - Nov 2010	Connecticut River Valley, Central and Northeast regions	—	Level 1 drought (out of 4 levels)	DCR 2017
Oct 2014 - Nov 2014	Southeast and Cape and Islands regions	—	Level 1 drought (out of 4 levels)	DCR 2017
Jul 2016 - Apr 2017	Statewide	—	Level 3 drought (out of 4 levels)	DCR 2017

Notes: (1) "—" denotes data not available; (2) USGS 1989 determined dry periods from streamflow and precipitation records. Dry periods that exceeded a recurrence interval of 10 years were deemed droughts; (3) DMP 2013 analyzed precipitation data only and as a statewide average of stations; (4) DCR 2017 compiled data based on historical drought declarations by the State under the protocol in its 2013 Drought Management Plan. DCR = Department of Conservation and Recreation; USGS = United States Geological Survey.

Source: MA Integrated State Hazard Mitigation and Climate Adaptation Plan, 2018

Drought and Climate Change

Changing precipitation patterns and the number of extreme weather events per year is difficult to project into the future. The Northeast Climate Science Center does report an anticipated increase in rainfall for Massachusetts in the spring and winter months and slightly decreased summer rainfall. Consequently, warming temperatures can cause greater evaporation in the summer and fall, as well as earlier snow melt. This, combined with projected higher summer temperatures could increase the frequency of episodic droughts in the future.

LAND USE AND DEVELOPMENT TRENDS

EXISTING LAND USE

The most recent land use statistics available from the state are based on aerial photography done in 2005. Table 28 shows the acreage and percentage of land in 20 categories. The most prevalent land use is High Density Residential at 1,675 acres, or 47.7 % of the total area. If the four residential categories are aggregated, residential uses make up 70.3 % of the area of the town. After all residential uses, the next largest category is commercial, with 245.3 acres, or 7.0 percent of the total land in the town. Town-wide land use is displayed on Map 2 in Appendix A.

Table 28:Arlington 2005 Land Use

Land Use Category	Acres	Percent
Forest	123.2	3.5%
Wetland	10.2	0.3%
Open Land	23.2	0.7%
Participation Recreation	105.6	3.0%
Water-Based Recreation	2.4286	0.1%
Multi-Family Residential	747.6	21.3%
High Density Residential	1675.3	47.7%
Medium Density Residential	29.1	0.8%
Low Density Residential	10.0	0.3%
Commercial	245.3	7.0%
Industrial	10.4	0.3%
Urban Open	13.1	0.4%
Transportation	57.9	1.6%
Water	230.5	6.6%
Golf Course	53.6	1.5%
Urban Public	106.3	3.0%
Cemetery	60.9	1.7%
Nursery	0.6	0.0%
Forested Wetland	3.1	0.1%
Junkyards	1.4	0.0%
TOTAL ACRES	**3509.9**	100.0%

Source: Mass GIS

For more information on how the land use statistics were developed and the definitions of the categories, please go to http://www.mass.gov/mgis/lus.htm.

DEVELOPMENT TRENDS

Development trends throughout the metropolitan region are tracked by MassBuilds, MAPC's Development Database, which provides an inventory of new development over the last decade. The database tracks both completed developments and those currently under construction. Using MassBuilds and the 2016 Arlington Housing Production Plan, Table 29 (below) was generated.

Table 29: Summary of Arlington Development and Development Potential

Name	Status	Year	Housing Units	Commercial Square Feet	Project Type
The Legacy	Completed	2000	94		Residential
ALTA Brigham Square	Completed	2013	116	3,500	Residential/office
Arlington 360 (former Symmes Hospital)	Completed	2014	176		Mixed Use
Kimball-Farmer House	Completed	2015	3		Residential
887 Mass Ave	Completed	2019	4	2,477	Mixed Use
20 Westminster	Construction	2020	9		Residential
925-927 Mass Ave	Construction	2020	3	3,882	Mixed Use
117 Broadway	Permitted	2021	14		Mixed Use
19R Park Ave	Permitted	2022	34		Residential
1207-1211 Mass Ave	Projected	2023		24,443	Mixed Use (50-room Hotel and Restaurant)
Thorndike Place (Mugar)	Projected		207		Residential
TOTAL			**660**	**34,302**	

Source: Town of Arlington

FUTURE DEVELOPMENT

The Town of Arlington is largely built out, with most of the identified potential future land uses expected on redevelopment sites. As new development and redevelopment occurs it will be subject to the latest building code requirements and zoning regulations pertaining to wind, earthquakes, and flooding.

MAPC consulted with the Local Hazard Mitigation Planning Team to determine areas that may be developed in the future, based on the Town's planning efforts and current development trends and projects. Town staff identified potential significant new development sites, which are listed in Table 30 and shown on Map 8 in Appendix A.

Table 30: Relationship of Potential Development to Hazard Areas

Map ID	Potential Future Project	Flood Zones
C	Mugar Property	66.33% in AE: 1% Annual Chance of Flooding, with BFE
F	Arlington High School	22.15% in X: 0.2% Annual Chance of Flooding
N	Arlington DPW Yard	1.99% in AE: 1% Annual Chance of Flooding, with BFE , and 37.91% in X: 0.2% Annual Chance of Flooding

Source: MAPC Data Services, GIS Analyst

In order to characterize any change in the Town's vulnerability associated with new developments, a GIS mapping analysis was conducted which overlaid the development sites with the FEMA Flood Insurance Rate Map (see Table 30). The analysis shows that two of the sites are partially located the in zone AE Zone (1% Annual Chance of Flooding), and two sites are partially within zone X (0.2% Annual Chance of Flooding). Parcels that are partially in a flood zone typically include a portion of the site that is not built on.

With respect to landslide risk, all the development sites are located in the area designated as "Low Incidence" for landslides. Other hazards such as wind speed and snowfall rates do not vary across Arlington (See hazard maps in Appendix A). Overall, Arlington's potential future development would not significantly increase the Town's vulnerability if existing regulations are adhered to.

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CRITICAL FACILITIES & INFRASTRUCTURE IN HAZARD AREAS

Critical infrastructure includes facilities that are important for disaster response and evacuation (such as emergency operations centers, fire stations, water pump stations, etc.) and facilities where additional assistance might be needed during an emergency (such as nursing homes, elderly housing, day care centers, etc.). The Local Hazard Mitigation Team identified and mapped 105 critical facilities in Arlington. These facilities are listed in Table 31 and are shown on all of the maps in Appendix A.

The purpose of mapping the natural hazards and critical infrastructure is to present an overview of hazards in the community and how they relate to critical infrastructure, to better understand which facilities may be vulnerable to particular natural hazards.

Explanation of Columns in Table 31.

Column 1: ID #: The first column in Table 31 is an ID number which appears on the maps that are part of this plan. See Appendix A.

Column 2: Name: The second column is the name of the site. If no name appears in this column, this information was not provided to MAPC by the community.

Column 3: Type: The third column indicates what type of site it is.

Column 4: Landslide Risk: The fourth column indicates the degree of landslide risk for that site. This information came from NESEC. The landslide information shows areas with either a low susceptibility or a moderate susceptibility to landslides based on mapping of geological formations. This mapping is highly general in nature. For more information on how landslide susceptibility was mapped, refer to http://pubs.usgs.gov/pp/p1183/pp1183.html.

Column 5: FEMA Flood Zone: The fifth column addresses the risk of flooding. A "No" entry in this column means that the site is not within any of the mapped risk zones on the Flood Insurance Rate Maps (FIRM maps). If there is an entry in this column, it indicates the type of flood zone as follows:

Column 6: Locally-Identified Flood Area: The locally identified areas of flooding were identified by town staff as areas where flooding occurs. These areas do not necessarily coincide with the flood zones from the FIRM maps. They may be areas that flood due to inadequate drainage systems or other local conditions rather than location within a flood zone. The numbers correspond to the numbers on Map 8, "Hazard Areas".

Column 7: Brush Fire Area: The seventh column identifies areas the local Hazard Mitigation Team identified as having the potential for brush fires.

Column 8: Annual Snowfall: The eighth column provides the range of annual snowfall provided by NESEC.

Table 31: Relationship of Critical Infrastructure to Hazard Areas							
ID	**NAME**	**TYPE**	**Landslide Risk**	**FEMA Flood Zone**	**Local Flood Area**	**Brush Fire Area**	**Annual Snowfall (inches)**
1	A Place to Grow at the Stratton School	Child Care	Low	No	No	No	48-72
2	ABC Pre-school	Child Care	Low	No	No	No	48-72
3	Little Sprouts	Child Care	Low	No	No	No	48-72
4	Arlington Children's Center, Inc.	Child Care	Low	No	No	No	48-72
5	Arlington Creative Start	Child Care	Low	No	No	No	48-72
6	Arlington Heights Nursery School	Child Care	Low	No	No	No	48-72
7	Arlington Infant-Toddler Center	Child Care	Low	No	No	No	48-72
8	Brackett After School Program	Child Care	Low	No	No	No	48-72
9	Bright Start After School @ Bishop	Child Care	Low	No	No	No	48-72
10	Fidelity House Preschool	Child Care	Low	No	No	No	48-72
11	Fidelity House School Age Child Care Pro	Child Care	Low	No	No	No	48-72
12	Great Expectations Preschool	Child Care	Low	No	No	No	48-72
13	Club Kids at the Arlington Boys and Girls Club	Child Care	Low	No	No	No	48-72
14	Kids Care Club at the Thompson School	Child Care	Low	No	No	No	48-72
15	Gibbs School	Child Care	Low	No	No	No	48-72
17	Peirce Playcare and Extended Day	Child Care	Low	No	No	No	48-72

Table 31: Relationship of Critical Infrastructure to Hazard Areas							
ID	**NAME**	**TYPE**	**Landslide Risk**	**FEMA Flood Zone**	**Local Flood Area**	**Brush Fire Area**	**Annual Snowfall (inches)**
18	Rogers-Pierce Children's Center	Child Care	Low	No	No	No	48-72
19	Sunshine Nursery School	Child Care	Low	No	No	No	48-72
20	The Afterschool Connection, Inc.	Child Care	Low	No	No	No	48-72
21	Fire Police Support Service (garage)	Municipal	Low	No	Garden Street	No	48-72
22	Headquarters Fire Station/Administration	Fire Station	Low	No	No	No	48-72
23	Park Circle Fire Station	Fire Station	Low	No	No	No	48-72
24	Highland Fire Station	Fire Station	Low	No	No	No	48-72
26	Arlington Town Hall	Municipal	Low	No	No	No	48-72
27	Fire/Police Dispatch & Community Safety Building	Emergency Operations Center	Low	No	Garden Street	No	48-72
28	Arlington Police Department	Police Station	Low	No	No	No	48-72
29	Hardy Elementary	School	Low	No	No	No	48-72
30	Leslie Ellis School	School	Low	No	No	No	48-72
32	Thompson Elementary	School	Low	No	No	No	48-72
33	Brackett	School	Low	No	No	No	48-72
34	Parmenter School	School	Low	No	No	No	48-72
35	Arlington Catholic HS	School	Low	No	No	No	48-72
36	St Agnes Elementary	School	Low	No	No	No	48-72

Table 31: Relationship of Critical Infrastructure to Hazard Areas							
ID	**NAME**	**TYPE**	**Landslide Risk**	**FEMA Flood Zone**	**Local Flood Area**	**Brush Fire Area**	**Annual Snowfall (inches)**
37	Cyrus E Dallin	School	Low	No	No	No	48-72
38	Menotomy Preschool	School	Low	X: 0.2% Annual Chance	No	No	48-72
39	LABBB Collaborative - BEHAVIORAL-ARLINGT	School	Low	No	No	No	48-72
40	Arlington High School	School	Low	X: 0.2% Annual Chance	No	No	48-72
41	Ottoson Middle School	School	Low	No	No	No	48-72
42	McLean Hospital Residential Program	School	Low	No	No	No	48-72
43	Bishop Elementary School	School	Low	No	No	No	48-72
44	Covenant School	School	Low	No	No	No	48-72
45	Peirce Elementary	School	Low	No	No	No	48-72
46	Stratton Elementary School	School	Low	No	No	No	48-72
47	Upper Mystic Lake Dam	Dam	Low	AE: Regulatory Floodway	No	No	48-72
48	Arlington Reservoir Dam	Dam	Low	AE: 1% Annual Chance with BFE	No	No	48-72
50	Mrs. T's Company Inc.	Child Care	Low	No	No	No	48-72
52	Grove St Bridge	Bridge	Low	X: 0.2% Annual Chance	No	No	48-72
53	Brattle St Bridge	Bridge	Low	No	Brattle Street	No	48-72
54	Pond Lane Bridge	Bridge	Low	No	No	No	48-72

Table 31: Relationship of Critical Infrastructure to Hazard Areas							
ID	**NAME**	**TYPE**	**Landslide Risk**	**FEMA Flood Zone**	**Local Flood Area**	**Brush Fire Area**	**Annual Snowfall (inches)**
55	Dow Ave Bridge	Bridge	Low	No	No	No	48-72
56	Park Ave Bridge	Bridge	Low	No	No	No	48-72
57	Pleasant St Bridge	Bridge	Low	No	No	No	48-72
58	Lake St Bridge	Bridge	Low	No	No	No	48-72
59	DPW office	Municipal	Low	No	Grove Street	No	48-72
60	Municipal admin (in AHS)	Municipal	Low	No	No	No	48-72
61	Library	Municipal	Low	No	No	No	48-72
62	Minuteman under Route 2	Bridge	Low	AE: Regulatory Floodway	East Arlington / Alewife	No	48-72
63	Alewife Brook bridge	Bridge	Low	X: 0.2% Annual Chance	East Arlington / Alewife	No	48-72
64	DPW Yard	Municipal	Low	X: 0.2% Annual Chance	Grove Street	No	48-72
65	Winslow Towers	Elder Housing	Low	No	No	No	48-72
66	Drake Village	Elder Housing	Low	No	No	No	48-72
67	Cusack Building	Elder Housing	Low	No	Garden Street	No	48-72
69	Park Ave nursing and rehab center	Nursing Home	Low	No	No	No	48-72
70	Spring St Pump Station	Water Pump Station	Low	No	No	No	48-72
71	Brattle Court Pump Station	Water Pump Station	Low	No	No	No	48-72
72	Park Circle Fire Station (Towers)	Communication Tower	Low	No	No	No	48-72
73	Park Circle Tower (1,000,000 gal.)	Water Storage Tank	Low	No	No	No	48-72
75	Bellington St Underground Water Storage Tank	Water Storage Tank	Low	No	No	No	48-72

Table 31: Relationship of Critical Infrastructure to Hazard Areas							
ID	**NAME**	**TYPE**	**Landslide Risk**	**FEMA Flood Zone**	**Local Flood Area**	**Brush Fire Area**	**Annual Snowfall (inches)**
76	Turkey Hill Water Storage Tank	Water Storage Tank	Low	No	No	No	48-72
77	Calvary Church, United Methodist	Church	Low	No	No	No	48-72
78	Church of Our Savior	Church	Low	No	No	No	48-72
79	First Baptist Church	Church	Low	No	No	No	48-72
80	First Parish Unitarian Universalist Chur	Church	Low	No	No	No	48-72
81	Highrock Church	Church	Low	No	No	No	48-72
82	Park Avenue Congregational Church, UCC	Church	Low	No	No	No	48-72
83	Boston Church of Christ	Church	Low	No	No	No	48-72
84	Saint Agnes Parish	Church	Low	No	No	No	48-72
85	Saint Athanasius Greek Orthodox Church	Church	Low	No	No	No	48-72
86	Saint Camillus	Church	Low	No	No	No	48-72
87	St. John's Episcopal Church	Church	Low	No	No	No	48-72
88	St. Paul Lutheran Church	Church	Low	No	No	No	48-72
89	Trinity Baptist Church	Church	Low	No	No	No	48-72
90	Bright View	Assisted Living	Low	No	No	No	48-72
91	Spring Board Day Care	Day Care	Low	No	No	No	48-72
92	Casa Esme	Day Care	Low	No	No	No	48-72
93	Sunrise	Assisted Living	Low	No	No	No	48-72

Table 31: Relationship of Critical Infrastructure to Hazard Areas							
ID	**NAME**	**TYPE**	**Landslide Risk**	**FEMA Flood Zone**	**Local Flood Area**	**Brush Fire Area**	**Annual Snowfall (inches)**
94	Natural Gas Distributor	Utility	Low	No	No	No	48-72
95	Police Substation	Municipal	Low	No	Sunnyside Avenue	No	48-72
96	Fox Library	Municipal	Low	No	No	No	48-72
97	Department of Children and Families	30 Mystic St.	Low	No	No	No	48-72
98	Tracks Under Field		Low	AE: Regulatory	East Arlington	No	48-72
99	Reed Street Pump Station	Pump Station	Low	No	No	No	48-72
100	Old Mystic Pump Station	Pump Station	Low	No	No	No	48-72
101	Intervale Pump Station	Pump Station	Low	X: 0.2% Annual Chance	No	No	48-72
102	Pond Land Pump Station	Pump Station	Low	No	No	No	48-72
103	Gould Road Pump Station	Pump Station	Low	No	No	No	48-72
104	1 Arizona Terrace	Pump Station	Low	AE: 1% Annual Chance, BFE	Sunnyside Avenue	No	48-72
105	Gould Road Pump Station	Pump Station	Low	No	No	No	48-72
106	Standish Pump Station	Pump Station	Low	No	No	No	48-72
107	Dow Pump Station	Pump Station	Low	No	No	No	48-72
108	Mystic Lake Pump Station	Pump Station	Low	AE: 1% Annual Chance, BFE	No	No	48-72
109	Magnolia Field Pump Station (Storm Drain)	Pump Station	Low	AE: Regulatory Floodway	East Arlington /Alewife	No	48-72
110	Arlington Community Center (including Senior Center)	Municipal	Low	No	No	No	48-72

Table 31: Relationship of Critical Infrastructure to Hazard Areas							
ID	NAME	TYPE	Landslide Risk	FEMA Flood Zone	Local Flood Area	Brush Fire Area	Annual Snowfall (inches)
111	Arlington Health and Human Services	Municipal	Low incidence	No	No	No	48-72
112	Chestnut Manor	Elder Housing	Low incidence	No	No	No	48-72
112	Arlington Youth Counseling Center	Municipal	Low incidence	No	No	No	48-72
114	Historic Kimball	Housing Corp of Arlington	Low incidence	No	No	No	48-72
115	Capitol Square Apartments	Housing Corp of Arlington	Low incidence	No	No	No	48-72
116	20 Westminste	Housing Corp of Arlington	Low incidence	No	No	No	48-72
117	Downing Square	Housing Corp of Arlington	Low incidence	AE: 1% Annual Chance; BFE	No	No	48-72
118	117 Broadway	Housing Corp of Arlington	Low incidence	No	No	No	48-72
119	Order of St. Anne- Bethany	Church	Low incidence	No	No	No	48-72
120	FoodLink	Food Security	Low incidence	No	No	No	48-72
121	Arlington EATS Food Pantry	Food Security	Low incidence	No	No	No	48-72
122	Armstrong Ambulance	Emergency Response	Low incidence	No	Garden Street	No	48-72
123	Arlington Community Media Inc (ACMi)	Local Media	Low incidence	No	No	No	48-72
124	MBTA Bus Depot - Arlington Heights	Transportation	Low incidence	AE: Regulatory Floodway	No	No	48-72
125	MassDOT District 4 Office	Transportation	Low incidence	No	No	No	48-72
126	Massachusetts Department of Children and Families	Social Services	Low incidence	No	No	No	48-72

VULNERABILITY ASSESSMENT

The purpose of the vulnerability assessment is to estimate the extent of potential damages from natural hazards of varying types and intensities. A vulnerability assessment and estimation of damages was performed for hurricanes, earthquakes, and flooding through the HAZUS-MH software.

Introduction to HAZUS-MH

HAZUS- MH (multiple-hazards) is a computer program developed by FEMA to estimate losses due to a variety of natural hazards. The following overview of HAZUS-MH is taken from the FEMA website. For more information on the HAZUS-MH software, go to http://www.fema.gov/plan/prevent/hazus/index.shtm

> "HAZUS-MH is a nationally applicable standardized methodology and software program that contains models for estimating potential losses from earthquakes, floods, and hurricane winds. HAZUS-MH was developed by the Federal Emergency Management Agency (FEMA) under contract with the National Institute of Building Sciences (NIBS). Loss estimates produced by HAZUS-MH are based on current scientific and engineering knowledge of the effects of hurricane winds, floods and earthquakes. Estimating losses is essential to decision-making at all levels of government, providing a basis for developing and evaluating mitigation plans and policies as well as emergency preparedness, response and recovery planning..
>
> HAZUS-MH uses state-of-the-art geographic information system (GIS) software to map and display hazard data and the results of damage and economic loss estimates for buildings and infrastructure. It also allows users to estimate the impacts of hurricane winds, floods and earthquakes on populations."

There are three modules included with the HAZUS-MH software: hurricane wind, flooding, and earthquakes. There are also three levels at which HAZUS-MH can be run. Level 1 uses national baseline data and is the quickest way to begin the risk assessment process. The analysis that follows was completed using Level 1 data.

Level 1 relies upon default data on building types, utilities, transportation, etc. from national databases as well as census data. While the databases include a wealth of information on the nine communities that are a part of this study, it does not capture all relevant information. In fact, the HAZUS training manual notes that the default data is "subject to a great deal of uncertainty."

However, for the purposes of this plan, the analysis is useful. This plan is attempting to only generally indicate the possible extent of damages due to certain types of natural disasters and to allow for a comparison between different types of disasters. Therefore, this analysis should be considered a starting point for understanding potential damages from the hazards.

ESTIMATED DAMAGES FROM HURRICANES

The HAZUS software was used to model potential damages to the community from a 100-year and 500-year hurricane event; storms that are 1% and 0.2% likely to happen in a given year, and roughly equivalent to a Category 2 and Category 4 hurricane. The damages caused by these hypothetical storms were modeled as if the storm track passed directly through the Town, bringing the strongest winds and greatest damage potential.

Though there are no recorded instances of a hurricane equivalent to a 500-year storm passing through Massachusetts, this model was included in order to present a reasonable "worst case scenario" that would help planners and emergency personnel evaluate the impacts of storms that might be more likely in the future, as we enter into a period of more intense and frequent storms.

Table 32: Estimated Damages from Hurricanes

	100-year	500-year
Building Characteristics		
Estimated total number of buildings	13,981	
Estimated total building replacement value (2014 $)	$6,423,000,000	
Building Damages		
# of buildings sustaining minor damage	423	2,363
# of buildings sustaining moderate damage	43	457
# of buildings sustaining severe damage	2	29
# of buildings destroyed	0	10
Population Needs		
# of households displaced	0	51
# of people seeking public shelter	0	16
Debris		
Building debris generated (tons)	2,650	12,362
Tree debris generated (tons)	1,392	4,061
# of truckloads to clear building debris	106	494
Value of Damages (millions of dollars)		
Total property damage (buildings and contents)	$34.200	$140.562
Total losses due to business interruption	$1.529	$11380
TOTAL	**$35.73**	**$151.94**

ESTIMATED DAMAGES FROM EARTHQUAKES

The HAZUS earthquake module allows users to define a number of different types of earthquakes and to input a number of different parameters. The module is more useful where there is a great deal of data available on earthquakes. In New England, defining the parameters of a potential earthquake is much more difficult because there is little historical data. The HAZUS earthquake module does offer the user the opportunity to select a number of historical earthquakes that occurred in Massachusetts. For the purposes of this plan, two earthquakes were selected: a 1963 earthquake with a magnitude of 5.0 and an earthquake with a magnitude of 7.0.

Table 33: Estimated Damages from Earthquakes

	Magnitude 5.0	**Magnitude 7.0**
Building Characteristics		
Estimated total number of buildings	13,981	
Estimated total building replacement value (2014 $)	$6,423,000,000	
Building Damages		
# of buildings sustaining slight damage	4,037	389
# of buildings sustaining moderate damage	2,328	2,529
# of buildings sustaining extensive damage	720	3,678
# of buildings completely damaged	194	7,353
Population Needs		
# of households displaced	1,224	12,940
# of people seeking public shelter	558	5,936
Debris		
Building debris generated (tons)	155,000	1,204,000
# of truckloads to clear debris (@ 25 tons/truck)	6,200	48,160
Value of Damages (Millions of dollars)		
Total property damage (structures and contents)	$734.27	$5,579.51
Total losses due to business interruption	$123.35	$739.65
TOTAL	**$857.62**	**$6,319.16**

ESTIMATED DAMAGES FROM FLOODING

The HAZUS flooding module allows users model the potential damages caused by a 100-year flood event and a 500-year flood event.

Table 34: Estimated Damages from Flooding

	100-Year Flood	500-Year Flood
Building Characteristics		
Estimated total number of buildings	13,981	
Estimated total building replacement value (2014 $)	$6,423,000,000	
Building Damages		
# of buildings sustaining moderate damage	67	109
# of buildings sustaining extensive damage	9	32
# of buildings substantially damaged	1	13
Population Needs		
# of households displaced	235	1,177
# of people seeking public shelter	25	69
Value of Damages (Millions of dollars)		
Total building losses	$36.22	$65.50
Total losses due to business interruption	$66.15	$102.30
TOTAL	**$102.38**	**$167.80**

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SECTION 5: HAZARD MITIGATION GOALS

MAPC coordinated with the Local Hazard Mitigation Planning Team to review and discuss the goals from the 2012 Hazard Mitigation Plan for the Town of Arlington. All of the goals are considered critical for the Town and they are not listed in order of importance. Prior to this Hazard Mitigation Plan update process, in 2018 the Town of Arlington held a Municipal Vulnerability Preparedness workshop to plan for future climate change. The local team chose to update their mitigation goals by incorporating climate adaptation and resiliency considerations as noted in Goal 9.

1. Prevent and reduce the loss of life, injury, public health impacts and property damages resulting from all major natural hazards.

2. Identify and seek funding for measures to mitigate or eliminate each known significant flood hazard area.

3. Integrate hazard mitigation planning as an integral factor in all relevant municipal departments, committees and boards.

4. Prevent and reduce the damage to public infrastructure resulting from all hazards.

5. Encourage the business community, major institutions and non-profits to work with the Town to develop, review and implement the hazard mitigation plan.

6. Work with surrounding municipalities, state, regional and federal agencies to ensure regional cooperation and solutions for hazards affecting multiple jurisdictions.

7. Ensure that future development meets federal, state and local standards for preventing and reducing the impacts of natural hazards.

8. Take maximum advantage of resources from FEMA and MEMA to educate Town staff and the public about hazard mitigation.

9. Implement multi-benefit climate adaptation and resiliency solutions across town to mitigate hazards and improve resilience.

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SECTION 6: EXISTING MITIGATION MEASURES

The existing protections in the Town of Arlington are a combination of zoning, land use, and environmental regulations, infrastructure maintenance and infrastructure improvement projects. Infrastructure maintenance generally addresses localized drainage clogging problems while large scale capacity problems may require pipe replacement, invert elevation modifications, or large scale bridge improvements and replacements. These more expensive projects are subject to the capital budget process and lack of funding is one of the biggest obstacles to completion of some of the larger projects. The existing mitigation measures in the Town of Arlington are described below and summarized in Table 35 below.

EXISTING MULTI- HAZARD MITIGATION MEASURES

Comprehensive Emergency Management Plan (CEMP) – Every community in Massachusetts is required to have a Comprehensive Emergency Management Plan. These plans address mitigation, preparedness, response and recovery from a variety of natural and man-made emergencies. These plans contain important information regarding flooding, hurricanes, tornadoes, dam failures, earthquakes, and winter storms. Therefore, the CEMP is a mitigation measure that is relevant to all of the hazards discussed in this plan. The Town's CEMP should be put into the current format.

Communications Equipment – The Town has access to three Incident Command Units, mobile communications centers available to the town through the MA State Police, the MA Dept. of Fire Services, Middlesex County Sheriff's Office, and MEMA. The town is purchasing updated communications equipment for the Fire and Police Depts.

Emergency Power Generators – Emergency power generators can be found in the High School and the Gibbs building. Both of these are natural gas run generators to provide emergency lighting in the event of a power failure.

Massachusetts State Building Code – The Massachusetts State Building Code contains many detailed regulations regarding wind loads, earthquake resistant design, flood-proofing, and snow loads.

Local Emergency Management Planning Committee (LEPC) - Arlington has its own Local Emergency Planning Committee, and participates in a Regional Emergency Planning Committee.

EXISTING MITIGATION FOR FLOOD-RELATED HAZARDS

National Flood Insurance Program (NFIP) – Arlington participates in the NFIP with 533 policies in force as of the end of 2018. FEMA maintains a database on flood insurance policies and claims. This database can be found on the FEMA website at https://www.fema.gov/policy-claim-statistics-flood-insurance The following information is provided for the Town of Arlington:

Flood insurance policies in force (as of December 31, 2018)	533
Coverage amount of flood insurance policies	$133,935,000
Premiums paid	$370,540
Total losses (all losses submitted regardless of the status)	442
Closed losses	392
Open losses	0
CWOP losses	50
Total payments (Total amount paid on losses)	$1,894,080

The Town complies with the NFIP by enforcing floodplain regulations, maintaining up-to-date floodplain maps, and providing information to property owners and builders regarding floodplains and building requirements.

Street sweeping – All streets are swept at least once annually in the spring and approximately two thirds of the streets are swept a second time in the fall. The Town's street sweeping program will be modified due to the MS4 stormwater permit.

Catch basin cleaning – There are approximately 2,000 catch basins in the Town and they are cleaned out by municipal crews once every two years. The Town's street catch-basin cleaning program will be modified due to the MS4 stormwater permit, which requires catch basins to be cleaned when they are 50 percent full of sediments.

Roadway treatments – The Town uses road salt pre-whetted with Ice-Ban Magic.

Zoning Regulations – Zoning is intended to protect the public health and safety through the regulation of land use. The Arlington Zoning Bylaw includes a Floodplain District (Section 11.04). The objectives of this district are to promote:

1. The health and safety of the occupants of lands subject to seasonal or periodic flooding in the Mill Brook, Alewife Brook, Mystic River, and Mystic Lakes floodplain, as shown on the zoning overlay map of the Town of Arlington.
2. To prevent the reduction of the water-carrying capacity of streams, brooks, rivers, and drainage courses by prohibiting the destruction or alteration of their natural character, and by preventing encroachment by future development, both public and private, in the floodway. A floodway includes the normal channel of a river or stream and those portions of the floodplains adjoining the normal channel which are reasonably required to carry off the flood flow.
3. The preservation of the natural flood control characteristics and the water storage capacity of the floodplain.
4. To protect the public from hazard and loss through the regulation of future development of lands adjoining such watercourses.
5. The safety and purity of water; control and containment of sewage; safety of gas, electric, fuel, and other utilities from breaking, leaking, short-circuiting, grounding, igniting, electrocuting or any other dangers due to flooding.

The Floodplain District is an overlay district, defined by the 100-year floodplain as designated by FEMA. Within the District, by-right uses are limited to agricultural or park/recreational uses. An existing structure may be expanded to a limited extent. Other uses, as allowed in the underlying zoning district, may be allowed by Special Permit, providing that it can be

demonstrated that the proposed construction will not increase flood elevations by more than 1 inch and that the project complies with applicable wetland regulations.

The bylaw was updated and recodified (Sec. 11.04) to be consistent with the Town's more stringent Conservation Commission regulations.

Stormwater Bylaw – The Town of Arlington Stormwater By-Law (Article 15) requires that for any development of a previously undeveloped property with a proposed impervious area of greater than 500 square feet or for the redevelopment of a property in which the area of impervious surface will increase by more than 350 square feet there shall be no net increase in the surface water runoff rate relative to the predevelopment runoff rate. This bylaw will be updated to comply with the EPA MS4 stormwater regulations.

Environmental Design Review Regulation – Large scale, non-residential development or redevelopment as well as any proposed development in certain areas of the Town are subject to the Environmental Design Review Regulation administered by the Arlington Redevelopment Board. On these sites, special attention is given to surface water drainage to ensure that there is no adverse impact on neighboring properties or the public storm drainage system. The regulations encourage measures to prevent erosion, minimize impervious areas, and stormwater treatment. The regulations were updated to be consistent with the Conservation Commission and Department of Public Works requirements.

Wetlands Protection Bylaw - The Town of Arlington Wetlands Protection By-Law (Article 8) protects water resources, wetlands, and their adjoining land areas by controlling activities that might have a significant or cumulative impact on the recognized values of these resource areas, including their ability to serve as a flood control and storm damage prevention feature. Any activity that might fill or otherwise alter these resource areas requires a permit from the Arlington Conservation Commission, which is required to include conditions necessary to protect these recognized values. The adjoining land area under the protection of this by-law includes land within 100 feet of a pond or wetland and land within 200 feet of a river or stream.

DCR dam safety regulations – The state has enacted dam safety regulations mandating inspections and emergency action plans. All new dams are subject to state permitting.

Arlington Great Meadows – Arlington Great Meadows is a 183-acre natural resource conservation area owned by the Town of Arlington in the Town of Lexington, upstream on Mill Brook. Consisting of a rich mosaic of wetland and upland environments, Arlington completed a stewardship plan for the area in 2001. Amongst the numerous natural resource values identified with this property was its value in helping to control flooding downstream in Mill Brook. The report further states that development of the property could result in increased flooding in downstream areas.

Arlington Open Space and Recreation Plan (OSRP)- Arlington's OSRP identifies Elizabeth Island and the Mugar Land for acquisition as open space. Both properties are located in floodplain areas. The OSRP was updated in 2015.

ABC Flood Group – Arlington, Belmont, and Cambridge have formed a flood group out of a shared concern for the serious impact that surface flooding and sewage backflows have in each community. The group has a Joint Powers Agreement and meets on a bi-monthly basis.

EXISTING MITIGATION FOR WIND-RELATED HAZARDS

Massachusetts State Building Code – The town enforces the Massachusetts State Building Code whose provisions are generally adequate to protect against most wind damage. The code's provisions are the most cost-effective mitigation measure against tornados given the extremely low probability of occurrence. If a tornado were to occur, the potential for severe damages would be extremely high.

Tree-trimming program – The Town conducts its own tree maintenance and also uses its own equipment to trim and remove trees as needed and grind stumps. The utility company, Eversource, also conducts tree trimming along its transmission lines.

EXISTING MITIGATION FOR WINTER-RELATED HAZARDS

Snow disposal –The town conducts general snow removal operations with its own equipment. The Town currently has an agreement for a snow disposal site but is seeking a longer-term solution.

EXISTING MITIGATION FOR FIRE-RELATED HAZARDS

Outdoor Burning Not Permitted – Outdoor burning is not allowed in Arlington.

Development Review – The Fire Department participates in the review of new development projects on a case by case basis.

EXISTING MITIGATION FOR GEOLOGIC HAZARDS

Massachusetts State Building Code – The State Building Code contains a section on designing for earthquake loads (780 CMR 1612.0). Section 1612.1 states that the purpose of these provisions is "to minimize the hazard to life to occupants of all buildings and non-building structures, to increase the expected performance of higher occupancy structures as compared to ordinary structures, and to improve the capability of essential facilities to function during and after an earthquake". This section goes on to state that due to the complexity of seismic design, the criteria presented are the minimum considered to be "prudent and economically justified" for the protection of life safety. The code also states that absolute safety and prevention of damage, even in an earthquake event with a reasonable probability of occurrence, cannot be achieved economically for most buildings.

Section 1612.2.5 sets up seismic hazard exposure groups and assigns all buildings to one of these groups according to a Table 1612.2.5. Group II includes buildings which have a substantial public hazard due to occupancy or use and Group III are those buildings having essential facilities which are required for post-earthquake recovery, including fire, rescue and police stations, emergency rooms, power-generating facilities, and communications facilities.

Table 35: Arlington Existing Mitigation Measures			
Type of Existing Mitigation Measures	**Area Covered**	**Effectiveness/ Enforcement**	**Updates / Changes Needed**
MULTIPLE HAZARDS			
Comprehensive Emergency Management Plan (CEMP)	Town-wide	Emphasis is on emergency response.	Needs to be put into current CEMP format
Communications Equipment	Town-wide	Effective	The town is purchasing updated communications equipment for the Fire and Police Depts.
Massachusetts State Building Code	Town-wide	Effective for new construction.	New code expected in 2021
Emergency Power Generators	Town-wide	Effective.	Upgrade generators as needed; provide generators at additional locations (Thompson School, DPW).
Participation in the Local Emergency Planning Committee (LEPC)	Town-wide	A forum for inter-departmental cooperation on natural and manmade disasters.	Meets semi-annually; Town is also part of a Regional Emergency Planning Committee
FLOOD HAZARDS			
Participation in the National Flood Insurance Program (NFIP)	Areas identified on the FIRM maps.	There are 533 policies in force.	Encourage all eligible homeowners to obtain insurance.
Street sweeping	Town-wide	Effective.	Will be modified by the MS4 stormwater permit
Catch basin cleaning	Town-wide	Effective.	Will be modified by the MS4 stormwater permit
Roadway winter treatments	Town roads	Effective.	None.
Zoning – Floodplain District	Town-wide	Effective for new construction.	Updated and recodified (11.04)
Stormwater Bylaw	Town-wide	Effective for new construction.	
Environmental Design Review Regulation	Limited areas	Effective for new construction.	Improved standards, consistent with Conservation Comm. and DPW
Wetlands Protection Bylaw	Resource Areas	Effective	Regulations added, includes Cornell rainfall data
DCR Dam Safety Regulations	Dams	Effective	None.
Arlington Reservoir Dam	Mill Brook downstream	Effective.	Emergency Action Plan prepared for Arlington Reservoir Dan in 2013

Table 35 Arlington Existing Mitigation Measures			
Type of Existing Mitigation Measures	**Area Covered**	**Effectiveness/ Enforcement**	**Updates / Changes Needed**
Great Meadows	Mill Brook downstream	Effective	Ensure permanent protection from development.
Arlington OSRP	Proposed conservation areas	Effective if implemented.	OSRP was updated in 2015. Will be updated again before 2022.
ABC Flood Group	Arlington, Belmont, and Cambridge	Effective	Joint Powers Agreement, historically met for bi-monthly meetings, meetings are now quarterly.
WIND HAZARDS			
The Massachusetts State Building Code	Town-wide	Effective for most situations except severe storms	None.
Tree trimming program – Town and Utilities (Eversource)	Town-wide	Eversource trims trees every four years	More effective tree trimming program.
WINTER HAZARDS			
There are no specific measures beyond regular salting and sanding of the roads and local plowing.	Town-wide	Effective	Seek a permanent snow disposal site.
BRUSH FIRE HAZARDS			
Outdoor burning prohibited	Town-wide	Effective.	None.
Development Review	Town-wide	Effective.	None.
GEOLOGIC HAZARDS			
The Massachusetts State Building Code	Town-wide	Effective for most situations.	None.

MITIGATION CAPABILITIES AND LOCAL CAPACITY FOR IMPLEMENTATION

Under the Massachusetts system of "Home Rule," the Town of Arlington is authorized to adopt and from time to time amend several local bylaws and regulations that support the Town's capabilities to mitigate natural hazards. These include the Zoning Bylaw, Stormwater Bylaw, Subdivision and Site Plan Review Regulations, Wetlands Regulations, Health Regulations, Public Works regulations, and local enforcement of the State Building Code. Local bylaws may be amended by the Town Meeting to improve the Town's capabilities, and changes to most regulations simply require a public hearing and a vote of the authorized board or commission. The Town of Arlington has recognized several existing mitigation measures that require implementation or improvements,

and has the capacity based on these Home Rule powers within its local boards and departments to address these.

Several Town departments including Public Works will address planned infrastructure projects. The Department of Public Works will collaborate with state agencies (DCR, MWRA) on dam management issues. Finally, efforts to improve emergency communications will be a collaborative effort among the Fire, Police, and Public Works Departments.

SECTION 7: MITIGATION MEASURES FROM PREVIOUS PLAN

IMPLEMENTATION PROGRESS ON THE PREVIOUS PLAN

At a meeting of the Arlington Local Hazard Mitigation Team, town staff reviewed the mitigation measures recommended in the 2012 Arlington Hazard Mitigation Plan and determined whether each measure had been implemented or not. Of those measures that had not yet been implemented, the local team evaluated whether or not the measure remained relevant and should be carried forward into this Hazard Mitigation Plan 2020 Update. The decision on whether to retain or delete a particular mitigation measure was based on the local team's assessment of the continued relevance or effectiveness of the measure and whether the deferral of action on the measure was due to the inability of the Town to take action on the measure since the previous plan. Table 36 summarizes the status of the 2012 plan's mitigation measures, and the local team's recommendations to include them in the 2020 plan update.

Table 36: Status of Mitigation Measures from the 2012 Plan

Mitigation Area/Topic	Hazard Type	Mitigation Recommended in the 2012 Plan	Priority In 2012 Plan	2020 Status Completed, In Progress, or Not Completed	Include in 2020 Plan?
A) Minuteman Bikeway	Flooding	Reconstruct or improve to withstand flooding (Mill Brook localized drainage, low lying area)	High	In progress	YES
B) East Arlington / Alewife	Flooding	Acquire open space for conservation (Public/Private)	High	In Progress	NO
C) Mill Brook Corridor	Flooding	Address flooding at Colonial Village	High	Not completed	YES
D) Alewife Brook Corridor	Flooding	Address flooding at Sunnyside Avenue	High	Not completed	YES
E) Eliminate Sanitary Sewer Overflows	Flooding	Implement program to eliminate SSOs	High	In progress	YES
F) Town-wide	Multi-hazard	Purchase mobile, long-running generators and/or install fixed, multi-fuel generators in designated emergency shelters	High	Completed	NO
G) Town-wide	Multi-hazard	Purchase hand-held GPS units and mobile radio communications equipment	High	Change: enable emergency cell phones for Health Dept.	NO
H) Town-wide	Multi-hazard	Upgrade all generators as needed; provide alternative fuel sources for generators	High	In Progress - Thermal heat for High School	YES

Mitigation Area/Topic	Hazard Type	Mitigation Recommended in the 2012 Plan	Priority In 2012 Plan	2020 Status Completed, In Progress, or Not Completed	Include in 2020 Plan?
I) Land Protection	Flooding	Acquire priority open space parcels for many uses including maintaining flood storage and water infiltration capacity.	High	In progress	YES
J) FIRM mapping and bylaws	Flooding	Update the town's zoning floodplain overlay map consistent with the FEMA Flood Information Rate Maps (FIRM).	High	In progress / Map update for new FIRM Maps	YES
K) Forest & Brattle Streets	Flooding	Install pumps to remove flood water in low areas of the road.	Medium	Not completed	YES
L) East Arlington / Alewife & Sunnyside Ave	Flooding	Program to acquire or elevate homes (for homes still experiencing flooding after other measures have been implemented).	Medium	Not completed	NO
M) Grove Street	Flooding	Renovate DPW building and create flood water storage.	Medium	In progress / redesigning	YES
N) Garden Street	Flooding	Acquire or elevate homes.	Medium	Not completed	NO
O) Town-wide Flooding, Drainage Infrastructure	Flooding	Dedicate more resources for more frequent maintenance of town-owned drainage facilities, such as more frequent removal of sediment.	Medium	In progress / MS4 Permit requirements for cleaning catch basins	YES
P) Flooding, Drainage Infrastructure	Flooding	Follow-up on studies identified in the 2004 Tri-Community Working Group Report.	Medium	Not completed	NO
Q) Town-wide: Flooding, Drainage Infrastructure	Flooding	Study groundwater sourced flooding	Medium	Not completed town researched historic maps of impacted areas	NO
R) Town-wide: Flooding, Drainage Infrastructure	Flooding	Study feasibility of creating stormwater utility	Medium	Not completed	YES
S) Town-wide: Flooding, Drainage Infrastructure	Flooding	Create, based on existing data, a web-based GIS wetlands mapping capacity.	Medium	Completed	NO
T) Town-wide: Flooding,	Flooding	Develop greater emergency flood preparation and	Medium	Completed	NO

Mitigation Area/Topic	Hazard Type	Mitigation Recommended in the 2012 Plan	Priority In 2012 Plan	2020 Status Completed, In Progress, or Not Completed	Include in 2020 Plan?
Drainage Infrastructure		emergency response capacity.			
U) Town-wide: High Winds and Hurricanes	Wind Hazards	Increase available funds for tree maintenance program.	Medium	In Progress	YES
V) Town-wide: Earthquakes	Geologic Hazards	Investigate options to make all public buildings earthquake resistant.	Medium	In progress / All but one Town building meets current Building Code	YES
W) Town-wide	Winter Storms	Identify a new snow dumping location.	Medium	Interim solution completed; need to procure long-term option	YES
X) Drainage Infrastructure	Flooding	Complete locating of all storm drains and catch basins into town GIS data base.	Low	Completed	NO
Y) Town-wide: Stormwater and Erosion Control Outreach and Education	Flooding	Develop a stronger wetland, erosion control, and stormwater education outreach program for town residents and builders	Low	In progress / MS 4 Permit requirements for Public Education	YES

The Town of Arlington has made some progress on achieving mitigation actions from the 2012 plan. Several recommended measures have been completed, including locating and mapping all storm drains, identifying an interim snow dumping location, developing greater flood preparations, and developing a GIS-based wetlands mapping capacity. Several others are in progress, including improvements to Minuteman Bikeway, open space acquisitions, program to eliminate SSOs, generators at the High School and Gibbs Building, relocation of the DPW building, increased sediment removal from catch basins, and increased resources for tree trimming.

Policy, programmatic areas, and plans that incorporated hazard mitigation priority achievements since the 2012 plan include: the completion of a Municipal Vulnerability Preparedness project in 2018, revisions to zoning bylaw and wetlands regulations in 2019, preparation of a detailed hydrologic and hydraulic assessment of flooding in the Mill Brook and evaluation of mitigation options, preparation of an Emergency Action Plan (EAP) for the Arlington Reservoir Dam in 2013, and an updated Open Space and Recreation Plan in 2015. The Town will also draw on the 2019 Hazard Mitigation Plan update as part of its strategy to establish new climate resilience priorities and natural hazard safety planning going forward.

Moving forward into the next five-year plan implementation period there will be many more opportunities to incorporate hazard mitigation into the Town's decision-making processes. The challenges the Town faces in implementing these measures are primarily due to limited funding and available staff time. This plan should help the Town prioritize the best use of its limited resources for enhanced mitigation of natural hazards.

SECTION 8: HAZARD MITIGATION STRATEGY

WHAT IS HAZARD MITIGATION?

Hazard mitigation means to permanently reduce or alleviate the losses of life, injuries and property resulting from natural and human-made hazards through long-term strategies. These long-term strategies include planning, policy changes, programs, projects and other activities. FEMA currently has three mitigation grant programs: the Hazards Mitigation Grant Program (HGMP), the Pre-Disaster Mitigation program (PDM), and the Flood Mitigation Assistance (FMA) program. The three links below provide additional information on these programs.

https://www.fema.gov/hazard-mitigation-grant-program
https://www.fema.gov/pre-disaster-mitigation-grant-program
https://www.fema.gov/flood-mitigation-assistance-grant-program

Hazard Mitigation Measures can generally be sorted into the following groups:

- ☐ Prevention: Government administrative or regulatory actions or processes that influence the way land and buildings are developed and built. These actions also include public activities to reduce hazard losses. Examples include planning and zoning, building codes, capital improvement programs, open space preservation, and stormwater management regulations.
- ☐ Property Protection: Actions that involve the modification of existing buildings or infrastructure to protect them from a hazard or removal from the hazard area. Examples include acquisition, elevation, relocation, structural retrofits, flood proofing, storm shutters, and shatter resistant glass.
- ☐ Public Education & Awareness: Actions to inform and educate citizens, elected officials, and property owners about the potential risks from hazards and potential ways to mitigate them. Such actions include outreach projects, real estate disclosure, hazard information centers, and school-age and adult education programs.
- ☐ Natural Resource Protection: Actions that, in addition to minimizing hazard losses also preserve or restore the functions of natural systems. These actions include sediment and erosion control, stream corridor restoration, watershed management, forest and vegetation management, and wetland restoration and preservation.
- ☐ Structural Projects: Actions that involve the construction of structures to reduce the impact of a hazard. Such structures include storm water controls (e.g., culverts), floodwalls, seawalls, retaining walls, and safe rooms.
- ☐ Emergency Services Protection: Actions that will protect emergency services before, during, and immediately after an occurrence. Examples of these actions include protection of warning system capability, protection of critical facilities, and protection of emergency response infrastructure.

(Source: FEMA Local Multi-Hazard Mitigation Planning Guidance)

PROCESS FOR SETTING PRIORITIES FOR MITIGATION MEASURES

The last step in developing the Town's mitigation strategy was to assign a level of priority to each mitigation measure so as to guide the focus of the Town's limited resources towards those actions with the greatest potential benefit. At this stage in the process, the Local Hazard Mitigation Planning Team had limited access to detailed analyses of the cost and benefits of any given mitigation measure, so prioritization is based on the local team members' understanding of existing and potential hazard impacts and an approximate sense of the costs associated with pursuing any given mitigation measure.

Priority setting was based on local knowledge of the hazard areas, including impacts of hazard events, the extent of the area impacted, and the relation of a given mitigation measure to the Town's goals. In addition, the local Hazard Mitigation Planning Team also took into consideration factors such as the number of homes and businesses affected, whether or not road closures occurred and what impact closures had on delivery of emergency services and the local economy, anticipated project costs, whether any environmental constraints existed, and whether the Town would be able to justify the costs relative to the anticipated benefits.

Table 37 demonstrates the prioritization of the Town's recommended hazard mitigation measures. For each mitigation measure, the geographic extent of the potential benefiting area is identified as is an estimate of the overall benefit and cost of the measures. The benefits, costs, and overall priority were evaluated in terms of the following factors:

Estimated Benefits	
High	Action will result in a significant reduction of hazard risk to people and/or property from a hazard event
Medium	Action will likely result in a moderate reduction of hazard risk to people and/or property from a hazard event
Low	Action will result in a low reduction of hazard risk to people and/or property from a hazard event
Estimated Costs	
High	Estimated costs greater than $250,000
Medium	Estimated costs between $50,000 to $250,000
Low	Estimated costs less than $50,000 and/or staff time
Priority	
High	Action very likely to have political and public support and necessary maintenance can occur following the project, and the costs seem reasonable considering likely benefits from the measure
Medium	Action may have political and public support and necessary maintenance has potential to occur following the project
Low	Not clear if action has political and public support and not certain that necessary maintenance can occur following the project

Table 37: Mitigation Strategy Prioritization

Mitigation Area/Topic	Mitigation Measure	Geographic Coverage	Estimated Benefit	Estimated Cost	Priority
FLOODING HAZARDS					
A) Minuteman Bikeway	Reconstruct or improve to withstand flooding (Mill Brook localized drainage, low lying area).	Minuteman Path	High	High	High
C) Mill Brook Corridor	Address flooding at Colonial Village.	Mill Brook corridor	High	High	High
D) Alewife Brook Corridor	Address flooding at Sunnyside Avenue.	Alewife Bk. corridor	High	High	High
E) Sanitary Sewer Overflows (SSOs)	Implement program to eliminate Sanitary Sewer Overflows.	Town-wide	High	High	High
I) Land Protection	Acquire priority open space parcels for many uses including maintaining flood storage and water infiltration capacity and for conservation.	Town-wide	Medium	High	Medium
J) FIRM mapping and bylaws	Update the town's zoning floodplain overlay map consistent with the FEMA Flood Information Rate Maps (FIRM).	Town-wide	Medium	Low	Low
K) Forest & Brattle Streets	Install pumps to remove flood water in low areas of the road.	Forest & Brattle Streets	High	High	High
M) Grove Street	Renovate DPW building and IT Data Center and create flood water storage.	Grove Street	Medium	High	Medium
O) Town-wide Flooding, Drainage	Dedicate more resources for more frequent maintenance of town-owned drainage facilities, such as more frequent removal of sediment.	Town-wide	Medium	High	Medium
R) Town-wide: Flooding, Drainage	Study feasibility of creating stormwater utility.	Town-wide	Medium	Medium	Medium

Mitigation Area/Topic	Mitigation Measure	Geographic Coverage	Estimated Benefit	Estimated Cost	Priority
Y) Town-wide: Stormwater Outreach and Education	Develop a stronger wetlands, erosion control, and stormwater education outreach program for town residents and builders.	Town-wide	Medium	Low	Medium
Z) Town-wide Flooding, Drainage	Develop a public/private partnership to facilitate drainage improvements, including "green" and "grey" infrastructure solutions and adjacent public lands/parks.	Town-wide	High	High	High
WIND HAZARDS					
U) Town-wide: High Winds and Hurricanes	Conduct a street tree inventory and Increase available funds for tree maintenance; coordinate with utilities.	Town-wide	Medium	Medium	Medium
GEOLOGIC HAZARDS					
V) Town-wide: Earthquakes	Investigate options to make all public buildings earthquake resistant.	Town-wide	Low	Low	Low
WINTER HAZARDS					
W) Town-wide	Identify a new permanent snow dumping location.	Town-wide	High	High	High
AA)Town-wide Public Buildings	Identify pubic buildings that may be vulnerable to snow loads and conduct a structural assessment if needed.	Town-wide	Medium	Low	Medium
WILDFIRE HAZARDS					
BB) Town-wide	Provide public information about brushfire hazards and preventative measures.	Town-wide	Low	Low	Medium
DROUGHT HAZARDS					
CC)Town-wide	Adopt guidelines for new development and town properties to promote drought-tolerant landscaping and site design.	Town-wide	Medium	Low	Medium

Mitigation Area/Topic	Mitigation Measure	Geographic Coverage	Estimated Benefit	Estimated Cost	Priority
EXTREME TEMPERATURES					
DD)Town-wide	Enhance public awareness on the risks of extreme temperatures and resources available to residents.	Town-wide	Medium	Low	Medium
MULTI-HAZARDS					
H) Town-wide	Upgrade all generators as needed; provide alternative fuel sources for generators.	Town-wide	Medium	Low	Medium

RECOMMENDED MITIGATION STRATEGY

INTRODUCTION TO RECOMMENDED MITIGATION STRATEGY - TABLE 38

Description of the Mitigation Measure – The description of each mitigation measure is brief and cost information is given only if cost data were already available from the community. The cost data represent a point in time and would need to be adjusted for inflation and for any changes or refinements in the design of a particular mitigation measure.

Priority – The designation of high, medium, or low priority was done at the meeting of the Local Hazard Mitigation Team as described above and shown in Table 37. The designations reflect discussion and a consensus developed at the meeting but could change in the future as conditions in the community change. In determining project priorities, the local team considered potential benefits and project costs.

Implementation Responsibility – The designation of implementation responsibility was determined by the Local Hazard Mitigation Team based on a general knowledge of what each municipal department is responsible for. It is likely that some mitigation measures will require that several departments work together and assigning staff is the sole responsibility of the governing body of each community.

Time Frame – The time frame was based on a combination of the priority for that measure, the complexity of the measure and whether or not the measure is conceptual, in design, or already designed and awaiting funding. Because the time frame for this plan is five years, the timing for all mitigation measures has been kept within this framework. The identification of a likely time frame is not meant to constrain a community from taking advantage of funding opportunities as they arise.

Potential Funding Sources – This column attempts to identify the most likely sources of funding for a specific measure. The information on potential funding sources in this table is preliminary and varies depending on a number of factors. These factors include whether or not a mitigation measure has been studied, evaluated or designed, or if it is still in the conceptual stages. Each grant program and agency has specific eligibility requirements that would need to be taken into consideration. In most instances, the measure will require a number of different funding sources. Identification of a potential funding source in this table does not guarantee that a project will be eligible for, or selected for funding. Upon adoption of this plan, the local committee responsible for its implementation should begin to explore the funding sources in more detail.

Additional information on funding sources – The best way to determine eligibility for a particular funding source is to review the project with a staff person at the funding agency. The following websites provide an overview of programs and funding sources.

Army Corps of Engineers (ACOE) – The website for the North Atlantic district office is http://www.nae.usace.army.mil/. The ACOE provides assistance in a number of types of projects including shoreline/streambank protection, flood damage reduction, flood plain management services and planning services.

Massachusetts Emergency Management Agency (MEMA) – The grants page http://www.mass.gov/dem/programs/mitigate/grants.htm has a useful table that compares eligible projects for the Hazard Mitigation Grant Program and the Flood Mitigation Assistance Program.

United States Department of Agriculture – The USDA has programs by which communities can get grants for firefighting needs. See the link below for some examples. http://www.rurdev.usda.gov/rd/newsroom/2002/cfg.html

Abbreviations Used in Table 38

FEMA Mitigation Grants includes:
- FMA = Flood Mitigation Assistance Program.
- HMGP = Hazard Mitigation Grant Program.
- PDM = Pre-Disaster Mitigation Program

ACOE = Army Corps of Engineers.
CPA = Community Preservation Act
MADOT = Massachusetts Department of Transportation
DCR = Department of Conservation and Recreation
DHS/EOPS = Department of Homeland Security/Emergency Operations
EPA/DEP = Environmental Protection Agency/Department of Environmental Protection
SRF = State Revolving Fund (Water & Wastewater)
USDA = United States Department of Agriculture

Table 38. Arlington Recommended Mitigation Measures						
Mitigation Area/Topic	**Mitigation Measure**	**Priority**	**Implementation Responsibility**	**Time Frame**	**Estimated Cost**	**Potential Funding Sources**
FLOODING HAZARDS						
A) Minuteman Bikeway	Reconstruct or improve to withstand flooding (Mill Brook localized drainage, low lying area)	High	DPW	2020-23	High	Arlington General Fund/CPA/FEMA
C) Mill Brook Corridor	Address flooding at Colonial Village	High	Planning & Community Development DPW	2021-24	High	Arlington General Fund/FEMA
D) Alewife Brook Corridor	Address flooding at Sunnyside Avenue	High	Planning & Community Development DPW	2021-24	High	Arlington General Fund/FEMA
E) Sanitary Sewer Overflows (SSOs)	Implement program to eliminate Sanitary Sewer Overflows	High	DPW	2020-25	High	Arlington General Fund/SRF/FEMA
I) Land Protection	Acquire open space parcels for multiple uses, including maintaining flood storage and water infiltration capacity and for conservation.	Medium	Planning & Community Development	2020-25	High	Arlington General Fund/CPA
J) FIRM mapping and bylaws	Update the town's zoning overlay map consistent with the FEMA Flood Information Rate Maps (FIRM).	Low	GIS/ Planning & Community Development	2020-21	Low	N/A

Table 38. Arlington Recommended Mitigation Measures						
Mitigation Area/Topic	**Mitigation Measure**	**Priority**	**Implementation Responsibility**	**Time Frame**	**Estimated Cost**	**Potential Funding Sources**
K) Forest & Brattle Streets	Install pumps to remove flood water in low areas of the road.	High	DPW	2020-25	High	Arlington General Fund/FEMA
M) Grove Street	Renovate DPW building and IT Data Center and create flood water storage.	Medium	DPW	2020-23	High	Arlington Capital Fund
O) Town-wide Flooding, Drainage	Dedicate more resources for more frequent maintenance of town-owned drainage facilities, such as more frequent removal of sediment.	Medium	DPW	2020-25	High	Arlington General Fund/Stormwater Budget
R) Town-wide: Flooding, Drainage	Study feasibility of creating stormwater utility.	Medium	DPW	2020-22	Medium	Arlington General Fund/MVP/ MAPC Technical Assistance
Y) Town-wide: Stormwater Outreach and Education	Develop a stronger wetland, erosion control, and stormwater education outreach program for town residents and builders.	Medium	Planning & Community Development DPW	2020-23	Low	Arlington General Fund
Z) Town-wide Flooding, Drainage	Develop a public/private partnership to facilitate drainage improvements, including “green” and “grey” infrastructure solutions and adjacent public lands/parks.	High	Planning & Community Development DPW	2020-25	High	Arlington General Fund/MVP

Mitigation Area/Topic	Mitigation Measure	Priority	Implementation Responsibility	Time Frame	Estimated Cost	Potential Funding Sources
WIND HAZARDS						
U) Town-wide: High Winds and Hurricanes	Conduct a street tree inventory and Increase available funds for tree maintenance; coordinate with utilities.	Medium	DPW/Tree Warden	2020-25	Medium	Arlington General Fund
GEOLOGIC HAZARDS						
V) Town-wide: Earthquakes	Investigate options to make all public buildings earthquake resistant.	Low	Inspectional Services / Facilities	2022-24	Low	Arlington General Fund
WINTER HAZARDS						
W) Town-wide	Identify a new snow permanent dumping location.	Medium	DPW	2020-23	High	Arlington General Fund
AA) Town-wide Public Buildings	Identify pubic buildings that may be vulnerable to snow loads and conduct a structural assessment if needed.	Medium	Facilities	2020-23	Low	Arlington General Fund / MII
WILDFIRE HAZARDS						
BB) Town-wide	Provide public information about brushfire hazards and preventative measures.	Medium	Fire Dept.	2020-23	Low	Arlington General Fund
DROUGHT						
CC) Town-wide	Adopt guidelines for new development and town properties to promote.	Medium	Redevelop-ment Board	2020-23	Low	Arlington General Fund

Hazard Area	Mitigation Measure	Priority	Implementation Responsibility	Time Frame	Estimated Cost	Potential Funding Sources
	drought-tolerant landscaping and site design.					
EXTREME TEMPERATURES						
DD) Town-wide	Enhance public awareness on the risks of extreme temperatures and resources available to residents.	Medium	Public Information Officer/ Police/Fire	2020-23	Low	Arlington General Fund
MULTI-HAZARDS						
H) Town-wide	Upgrade all generators as needed; provide alternative fuel sources for generators.	Medium	Police/Fire/DPW Facilities	2020-23	Low	Arlington General Fund/FEMA

REGIONAL AND INTER-COMMUNITY CONSIDERATIONS

Some hazard mitigation issues are strictly local. The problem originates primarily within the municipality and can be solved at the municipal level. Other issues are inter-community issues that involve cooperation between two or more municipalities. There is a third level of mitigation which is regional; involving a state, regional, or federal agency or an issue that involves three or more municipalities.

Arlington is currently a member of three regional collaboratives established for the purpose of improving climate change and natural disaster resilience. These three collabortives include the MAPC Metro Mayors Coalition Climate Preparedness Taskforce, the Mystic River Watershed Association's Resilient Mystic Collaborative, and the Charles River Watershed's Climate Compact.

The Metropolitan Mayors Coalition is a group of cities and towns in the urban core of the Metro Boston area whose leaders pledged to work together to create solutions for common, regional issues. The Climate Preparedness Taskforce works on projects and programs to promote climate mitigation (reducing greenhouse gas emissions) and enhance climate resiliency (strengthening communities socially and structurally).

The Resilient Mystic Collaborative is a partnership between nineteen cities and towns within the Mystic River Watershed, facilitated by the Mystic River Watershed Association (MyRWA). The Collaborative is committed to working on projects of regional significance to decrease collective risk of harm from flooding, drought, extreme temperatures, storms, sea level rise and other climate-intensified risks. The Collaborative is made up of six working groups: Advocacy and Policy, Collaborative Governance, Lower Mystic Resilient Infrastructure, Social Resiliency, Stormwater Modeling, and Upper Mystic Stormwater Modeling.

The Climate Compact is a partnership between the cities and towns within the Charles River Watershed, facilitated by the Charles River Watershed Association. The Climate Compact aims to bring together communities in the Charles River watershed to work on climate adaptation by sharing information and experiences and taking a watershed view of adaptation strategies.

REGIONAL PARTNERS

In many communities, mitigating natural hazards, particularly flooding, is more than a local issue. The drainage systems that serve these communities are a complex system of storm drains, roadway drainage structures, pump stations and other facilities owned and operated by a wide array of agencies including but not limited to the Town of Arlington, the Department of Conservation and Recreation (DCR), the Massachusetts Water Resources Authority (MWRA), Massachusetts Department of Transportation (MassDOT), the Massachusetts Bay Transportation Authority (MBTA), the Mystic River Watershed Association, and the Charles River Watershed Associations. The planning, construction, operations and maintenance of these structures are integral to the flood hazard mitigation efforts of communities. These agencies must be considered the communities regional partners in hazard mitigation. These agencies also operate under the same constraints as communities do including budgetary and staffing constraints and numerous competing priorities. In the sections that follow, the plan includes recommendations for activities to be undertaken by these other agencies. Implementation of these recommendations will require that all parties work together to develop solutions.

Examples of regional facilities in Arlington include:

- ☐ State Routes 2, 2A, 3 and 60
- ☐ Alewife Brook Parkway, Route 16
- ☐ Mystic Valley Parkway
- ☐ MBTA Bus Routes 77 and 79
- ☐ Upper Mystic Lake Dam (DCR)
- ☐ MassDOT District 4 Headquarters

INTER-COMMUNITY CONSIDERATIONS

Alewife Brook

The nature of the Alewife Brook basin has characteristics that make the area prone to flooding even before the introduction of an urbanized environment with large amounts of impervious surfaces and drainage systems. Urbanization of this environment has therefore only exacerbated these issues, with the result that there are significant amounts of flooding from the Alewife Brook and its tributaries, particularly in portions of Cambridge and Arlington. In an attempt to collectively understand and begin to address this issue, Arlington, Belmont, and Cambridge have together formed the ABC Flood Group, (originally the Tri-Community Flood Group), which issued a report in 2004.

The report identifies several topics for future study. Among those is analysis of the effects of the relatively low bridges over the brook and how these may constrain floodwaters leading to greater flooding. The working group could also consider developing a shared set of low-impact design (LID) standards targeting stormwater controls for development projects in the respective communities and a shared outreach program encouraging property owners to take greater steps to retain stormwater on their properties, thereby keeping some portion of the stormwater out of the conveyance system and potentially reducing flooding in the brook. There are a number of other potential projects that would benefit all three communities that could be explored through this working group.

While the report indicates that the Amelia Earhart Dam on the Mystic River has sufficient pumping capacity to ensure that floodwaters are conveyed downstream, since the report's publication there is consensus that a fourth pump is critical to addressing flooding in the Alewife Brook area as larger storms in recent years have led to more numerous flooding events. This will become more important as climate change continues to drive more intense rainfall events, as well as rising sea levels and potentially higher storm surges.

Groundwater Sourced Flooding

A number of communities in this part of the region experience a relatively high incidence of groundwater sourced flooding in basements including Arlington, Belmont, and Watertown. This flooding appears to be linked to high water tables created by clay layers in the soil. Areas that flood appear to be scattered across these communities and in each of the above towns, local staff indicated that they did not have an accurate way to predict exactly where or when basement flooding might occur. These communities might benefit from sharing the cost of investigating the causes of this flooding, mapping the most likely areas impacted, and developing awareness programs for property owners.

NEW DEVELOPMENT AND INFRASTRUCTURE

As part of the process of developing recommendations for new mitigation measures for this plan update, the Town considered the issues related to new development, redevelopment, and infrastructure needs in order limit future risks. Those efforts include the Wetlands regulations that were recently adopted, the updated and recodified Zoning Bylaw, and the Municipal Vulnerability Preparedness plan completed in 2018 and the Municipal Vulnerability Preparedness project at Wellington Park completed in 2019.

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SECTION 9: PLAN ADOPTION & MAINTENANCE

PLAN ADOPTION AND APPROVAL

The Arlington Hazard Mitigation Plan was adopted by the Select Board on [ADD DATE]. See Appendix D for documentation. The plan was approved by FEMA on [ADD DATE] for a five-year period that will expire on [ADD DATE]. See Appendix E for documentation of plan approval.

PLAN MAINTENANCE

Although many of the mitigation measures from the Town's previous 2012 Hazard Mitigation Plan have been implemented, since that plan was adopted there has not been an ongoing local process to guide implementation of the plan. Such a process is needed over the next five years for the implementation of this plan update and will be structured as described below.

MAPC worked with the Arlington Hazard Mitigation Team to prepare this plan. This group will continue to meet on an as-needed basis to coordinate the implementation and maintenance of this plan, with the Environmental Planner designated as the team coordinator. Additional members could be added to the local team from businesses, non-profits and institutions. The Town will encourage public participation during the next 5-year planning cycle. As updates and a review of the plan are conducted by the Hazard Mitigation Team, these will be placed on the Town's web site, and any meetings of the Hazard Mitigation Team will be publicly noticed in accordance with town and state open meeting laws.

IMPLEMENTATION AND EVALUATION SCHEDULE

Mid-Term Survey on Progress – The coordinator of the Hazard Mitigation Team will prepare and distribute a survey in year three of the plan. The survey will be distributed to all the local team members and other interested local stakeholders. The survey will poll the members on progress and accomplishments for implementation, any new hazards or problem areas that have been identified, and any changes or revisions to the plan that may be needed.

This information will be used to prepare a report or addendum to the local hazard mitigation plan in order to evaluate its effectiveness in meeting the plan's goals and identify areas that need to be updated in the next plan. The Hazard Mitigation Implementation Team will have primary responsibility for tracking progress, evaluating, and updating the plan.

Begin to prepare for the next Plan Update – FEMA's approval of this plan is valid for five years, by which time an updated plan must be approved by FEMA in order to maintain the Town's approved plan status and its eligibility for FEMA mitigation grants. Given the lead time needed to secure grant funding and conduct the planning process, the Hazard Mitigation Implementation Team will begin to prepare for an update of the plan in year three. This will help the Town avoid a lapse in its approved plan status and grant eligibility when the current plan expires.

The Hazard Mitigation Implementation Team will use the information from the Mid-Term progress review to identify the needs and priorities for the plan update and seek funding for the plan update process. Potential sources of funding may include FEMA Pre-Disaster Mitigation grants and

the Hazard Mitigation Grant Program. Both grant programs can pay for 75% of a planning project, with a 25% local cost share required.

Prepare and Adopt an Updated Local Hazard Mitigation Plan – Once the resources have been secured to update the plan, the Hazard Mitigation Team may decide to undertake the update themselves, contract with the Metropolitan Area Planning Council to update the plan or to hire another consultant. However the Hazard Mitigation Implementation Team decides to update the plan, the Town will need to review the current FEMA hazard mitigation plan guidelines at that time for any changes in requirements for hazard mitigation plans since the previous plan. Once the next plan update is prepared, the Town will submit it to MEMA and FEMA for review and approval, and adopt the plan update in order to obtain formal FEMA approval of the plan.

INTEGRATION OF THE PLAN WITH OTHER PLANNING PROCESSES

Upon approval of the Arlington Hazard Mitigation Plan by FEMA, the Local Hazard Mitigation Implementation Team will provide all interested parties and implementing departments with a copy of the plan and will initiate a discussion regarding how the plan can be integrated into that department's ongoing work. At a minimum, the plan will be reviewed and discussed with the following departments:

- ☐ Fire / Emergency Management
- ☐ Police
- ☐ Public Works / Highway
- ☐ Engineering
- ☐ Planning and Community Development
- ☐ Conservation
- ☐ Parks and Recreation
- ☐ Health and Human Services
- ☐ Inspectional Services

Other groups that will be coordinated with include large institutions, Chambers of Commerce, land conservation organizations and watershed groups. The plans will also be posted on a community's website with the caveat that local team coordinator will review the plan for sensitive information that would be inappropriate for public posting. The posting of the plan on a web site will include a mechanism for citizen feedback such as an e-mail address to send comments.

The Hazard Mitigation Plan will be integrated into other Town plans and policies as they are updated and renewed, including the Master Plan, the Open Space and Recreation Plan, Comprehensive Emergency Management Plan, and Capital Investment Program.

SECTION 10: LIST OF REFERENCES

In addition to the specific reports listed below, much of the technical information for this plan came from meetings with town department heads and staff.

Town of Arlington, Zoning Bylaw

Town of Arlington, Bylaws, Storm Water Mitigation Town

of Arlington *Open Space and Recreation Plan,* 2015

Town of Arlington Municipal Vulnerability Preparedness report, 2018

Town of Arlington Housing Production Plan, 2016

Town of Arlington, *Natural Resource Inventory & Stewardship Plan of Arlington's Great Meadows in Lexington*, July 2001.

Cambridge Climate Vulnerability Assessment. Part 1. April 2017

Center for Disease Control and Prevention, *Natural Disasters and Severe Weather*

FEMA, *Local Mitigation Plan Review Guide*, October 2011

FEMA, Flood Insurance Rate Maps for Middlesex County, MA, 2014

Gamble, J. L., Hurley, B. J., Schultz, P. A., Jaglom, W. S., Krishnan, N., & Harris, M., *Climate Change and Older Americans,* 2014

MA EOEEA and MEMA, *State Hazard Mitigation and Climate Adaptation Plan*, 2018

MEMA, *Massachusetts State Hazard Mitigation Plan*, 2013

Metropolitan Area Planning Council, GIS Lab, Regional Plans and Data.

Northeast Climate Center UMass Amherst. Mass. Climate Change Projections, 2017

Northeast Wildfire Risk Assessment Geospatial Work Group,

New England Seismic Network, Boston College Weston Observatory, http://aki.bc.edu/index.htm

NOAA National Environmental Information Center

Northeast States Emergency Consortium, http://www.nesec.org/

USGCRP, I*mpacts, Risks, and Adaptation in the United States: Fourth National Climate Assessment*, 2018

USGS, National Water Information System, http://nwis.waterdata.usgs.gov/usa/nwis

USGS, *Landslide Types and Processes*. Fact Sheet 2003-3072

US Census, 2010 and American Community Survey 2017 5-Year Estimates

Weston and Sampson, *Mill Brook Evaluation*, 2014

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APPENDIX A: HAZARD MAPPING

The MAPC GIS (Geographic Information Systems) Lab produced a series of maps for each community. Some of the data came from the Northeast States Emergency Consortium (NESEC). More information on NESEC can be found at http://www.serve.com/NESEC/. Due to the various sources for the data and varying levels of accuracy, the identification of an area as being in one of the hazard categories must be considered as a general classification that should always be supplemented with more local knowledge. The documentation for some of the hazard maps was incomplete as well.

The map series consists of ten panels displaying the following information:

Map 1.	Population Density
Map 2.	Potential Development
Map 3.	Flood Zones
Map 4.	Earthquakes and Landslides
Map 5.	Hurricanes and Tornadoes
Map 6.	Average Snowfall
Map 7.	Composite Natural Hazards
Map 8.	Hazard Areas
Map 9	Sea Level Rise
Map 10	High Land Surface Temperature

Map1: Population Density – This map uses the US Census block data for 2010 and shows population density as the number of people per acre in seven categories with 60 or more people per acre representing the highest density areas.

Map 2: Potential Development – This map shows potential future developments, and critical infrastructure sites. MAPC consulted with town staff to determine areas that were likely to be developed or redeveloped in the future.

Map 3: Flood Zones – The map of flood zones used the FEMA NFIP Flood Zones for Middlesex County as its source. For more information, refer to the FEMA Map Service Center website http://www.msc.fema.gov. The definitions of the flood zones are described in detail on this site as well. The flood zone map for each community also shows critical infrastructure and municipally owned and protected open space.

Map 4: Earthquakes and Landslides – This information came from NESEC. For most communities, there was no data for earthquakes because only the epicenters of an earthquake are mapped.

The landslide information shows areas with either a low susceptibility or a moderate susceptibility to landslides based on mapping of geological formations. This mapping is highly general in nature. For more information on how landslide susceptibility was mapped, refer to http://pubs.usgs.gov/pp/p1183/pp1183.html.

Map 5: Hurricanes and Tornadoes – This map shows a number of different items. The map includes the storm tracks for both hurricanes and tropical storms. This information must be viewed in context. A storm track only shows where the eye of the storm passed through. In most cases, the effects of the wind and rain from these storms were felt in other communities even if the track was

not within that community. This map also shows the location of tornadoes with a classification as to the level of damages. What appears on the map varies by community since not all communities experience the same wind-related events. These maps also show the 100 year wind speed.

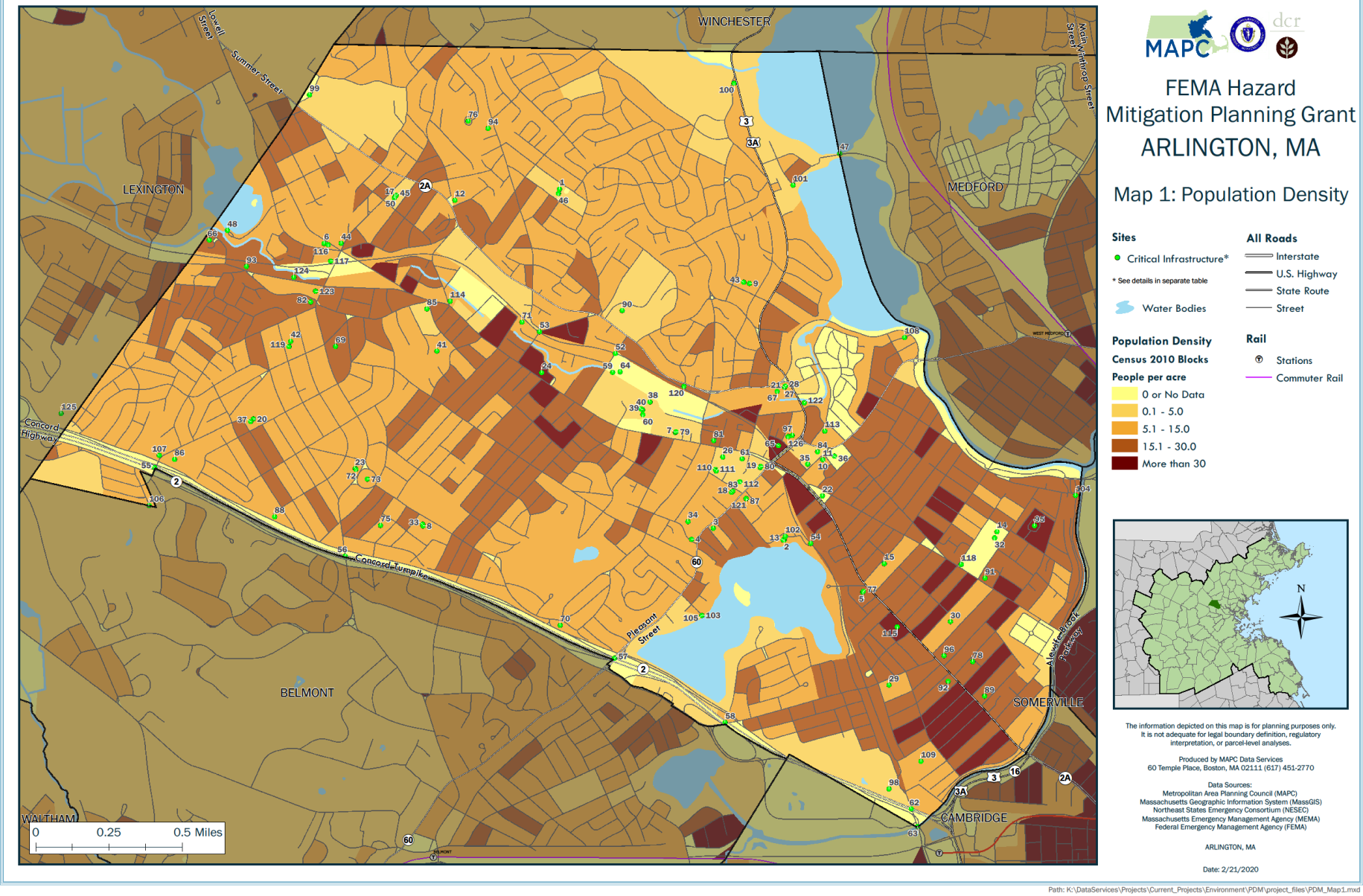
***Map 6: Average Snowfall* - -** This map shows the average snowfall and open space. It also shows storm tracks for nor'easters, if any storms tracked through the community.

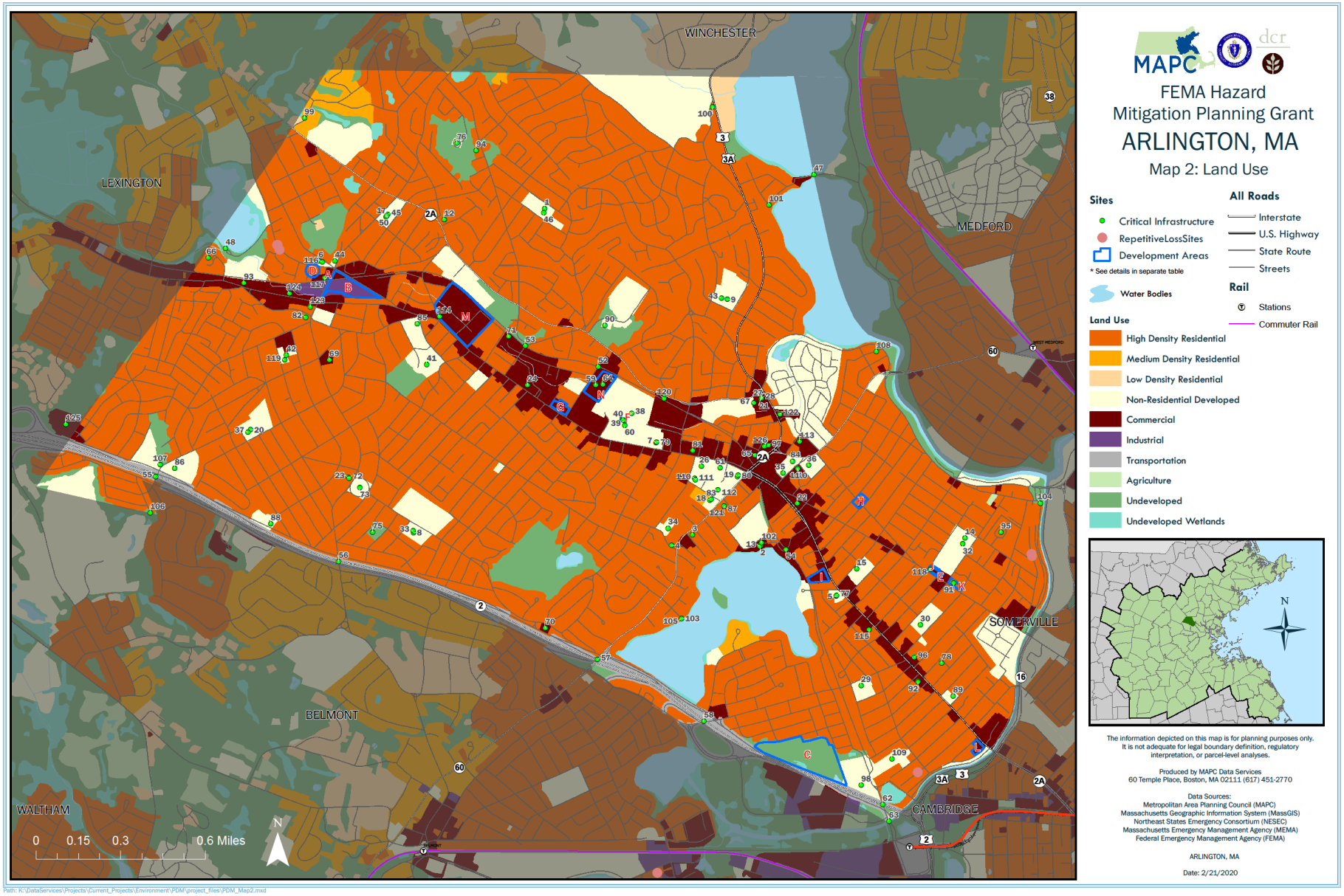
***Map 7: Composite Natural Hazards* -** This map shows four categories of composite natural hazards for areas of existing development. The hazards included in this map are 100 year wind speeds of 110 mph or higher, low and moderate landslide risk, FEMA Q3 flood zones (100 year and 500 year) and hurricane surge inundation areas. Areas with only one hazard were considered to be low hazard areas. Moderate areas have two of the hazards present. High hazard areas have three hazards present and severe hazard areas have four hazards present.

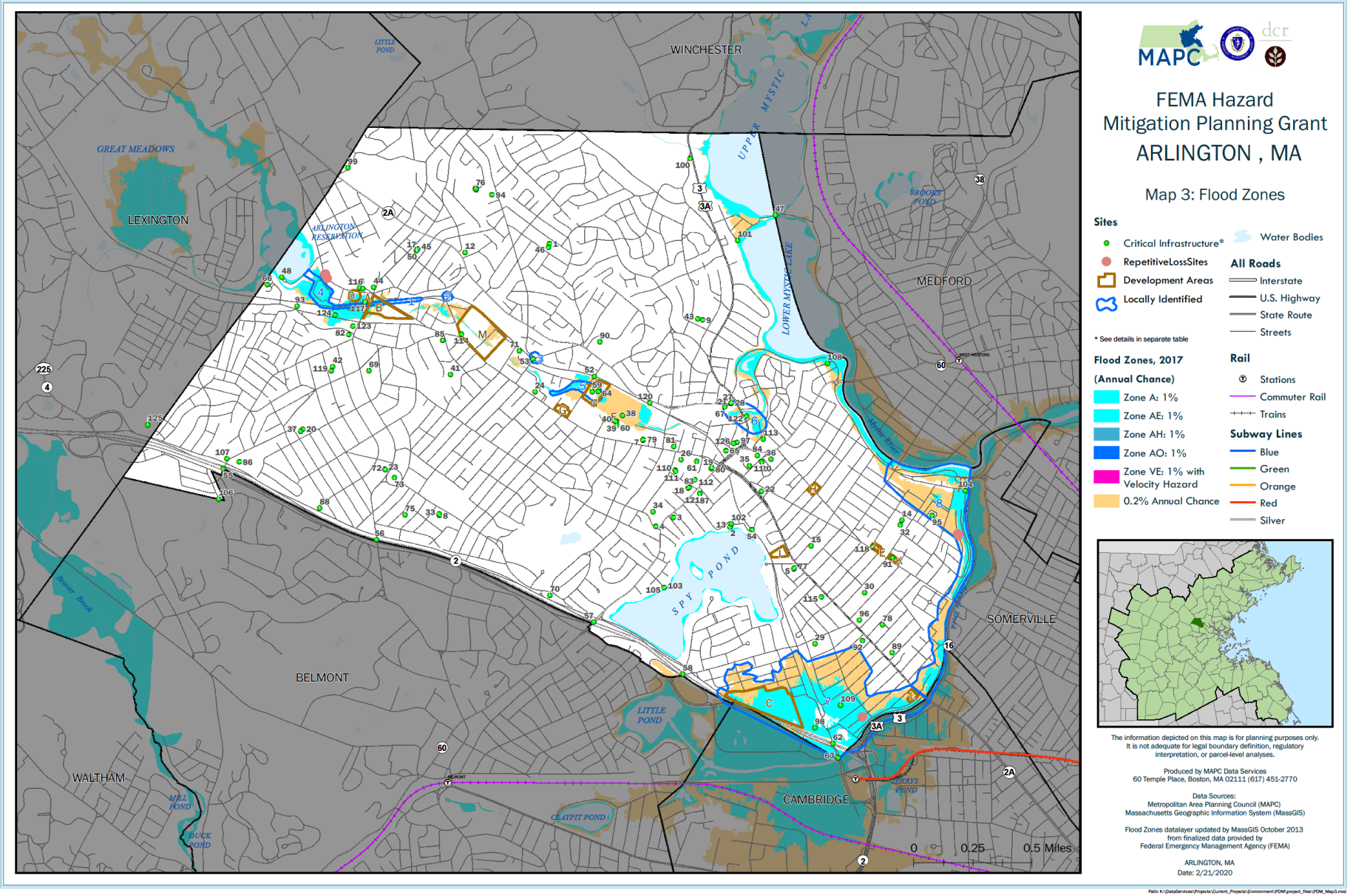
***Map 8: Hazard Areas* –** For each community, locally identified hazard areas are overlaid on an aerial photograph dated April, 2008. The critical infrastructure sites are also shown. The source of the aerial photograph is Mass GIS.

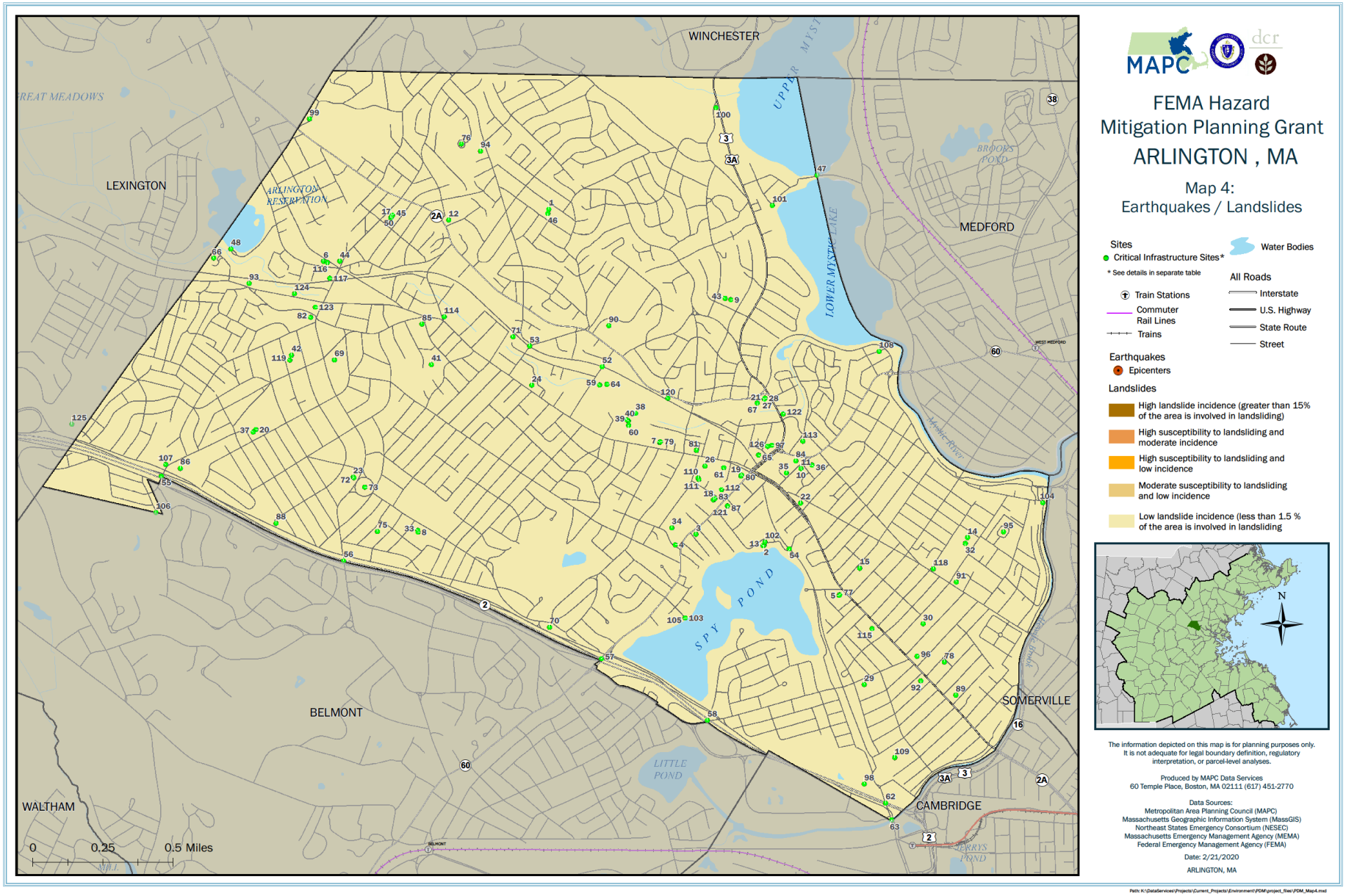
Map 9: Sea Level Rise – Based on the National Oceanic and Atmospheric Administration's (NOAA) Sea Level Rise viewer, this map shows the potential shoreline for Sea Level Rise scenarios for 1, 3, 6, and 10 feet of future sea level rise.

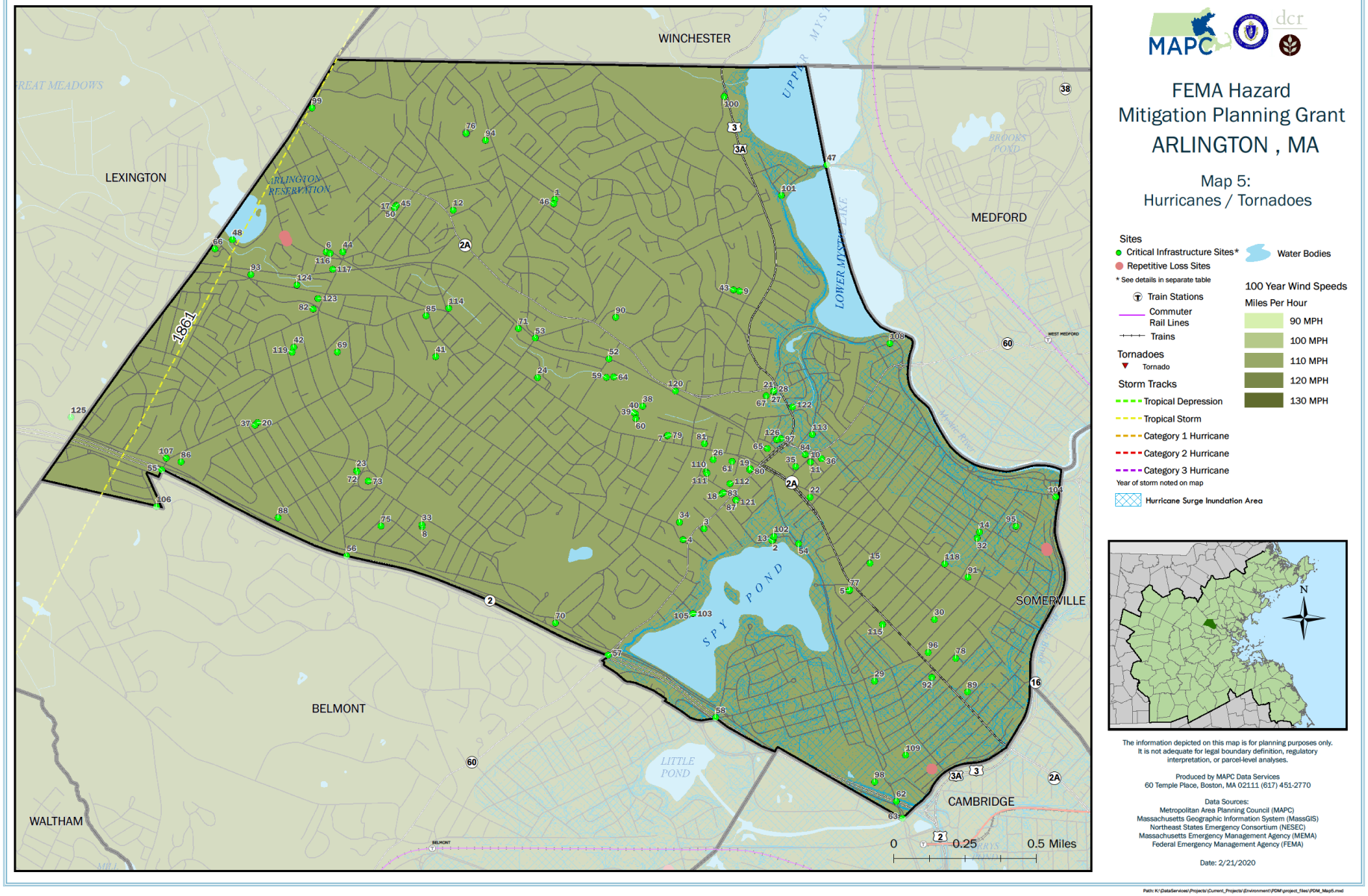
Map 10: High Land Surface Temperature- MAPC uses LANDSAT 30m spatial resolution satellite data to extract land surface temperature to assess a community's exposure to present-day extreme heat and any vulnerabilities to rising temperatures with climate change. The extreme heat analysis uses date from 2016 with satellite images on days of 90° or higher at Logan Airport, July 13 and August 30, 2016 and created land surface temperature using a methodology development by Walawender, Hajto, and Iwaniuk (2012) called Landsat TRS Tools. This map illustrates the hottest areas in the top fifth percentile for the 101 towns in Metropolitan Boston.


WINCHESTER
LEXINGTON
MEDFORD
BELMONT
WALTHAM
SOMERVILLE
CAMBRIDGE
Lowell Street
Summer Street
McKay/Winthrop Street
Concord Highway
Concord Turnpike
Pleasant Street
Alewife Brook Parkway
0 0.25 0.5 Miles
MAPC
dcr
FEMA Hazard Mitigation Planning Grant
ARLINGTON, MA
Map 1: Population Density
Sites
Critical Infrastructure*
* See details in separate table
Water Bodies
All Roads
Interstate
U.S. Highway
State Route
Street
Population Density
Census 2010 Blocks
People per acre
0 or No Data
0.1 - 5.0
5.1 - 15.0
15.1 - 30.0
More than 30
Rail
Stations
Commuter Rail
N
The information depicted on this map is for planning purposes only. It is not adequate for legal boundary definition, regulatory interpretation, or parcel-level analyses.
Produced by MAPC Data Services
60 Temple Place, Boston, MA 02111 (617) 451-2770
Data Sources:
Metropolitan Area Planning Council (MAPC)
Massachusetts Geographic Information System (MassGIS)
Northeast States Emergency Consortium (NESEC)
Massachusetts Emergency Management Agency (MEMA)
Federal Emergency Management Agency (FEMA)
ARLINGTON, MA
Date: 2/21/2020
Path: K:\DataServices\Projects\Current_Projects\Environment\PDM\project_files\PDM_Map1.mxd

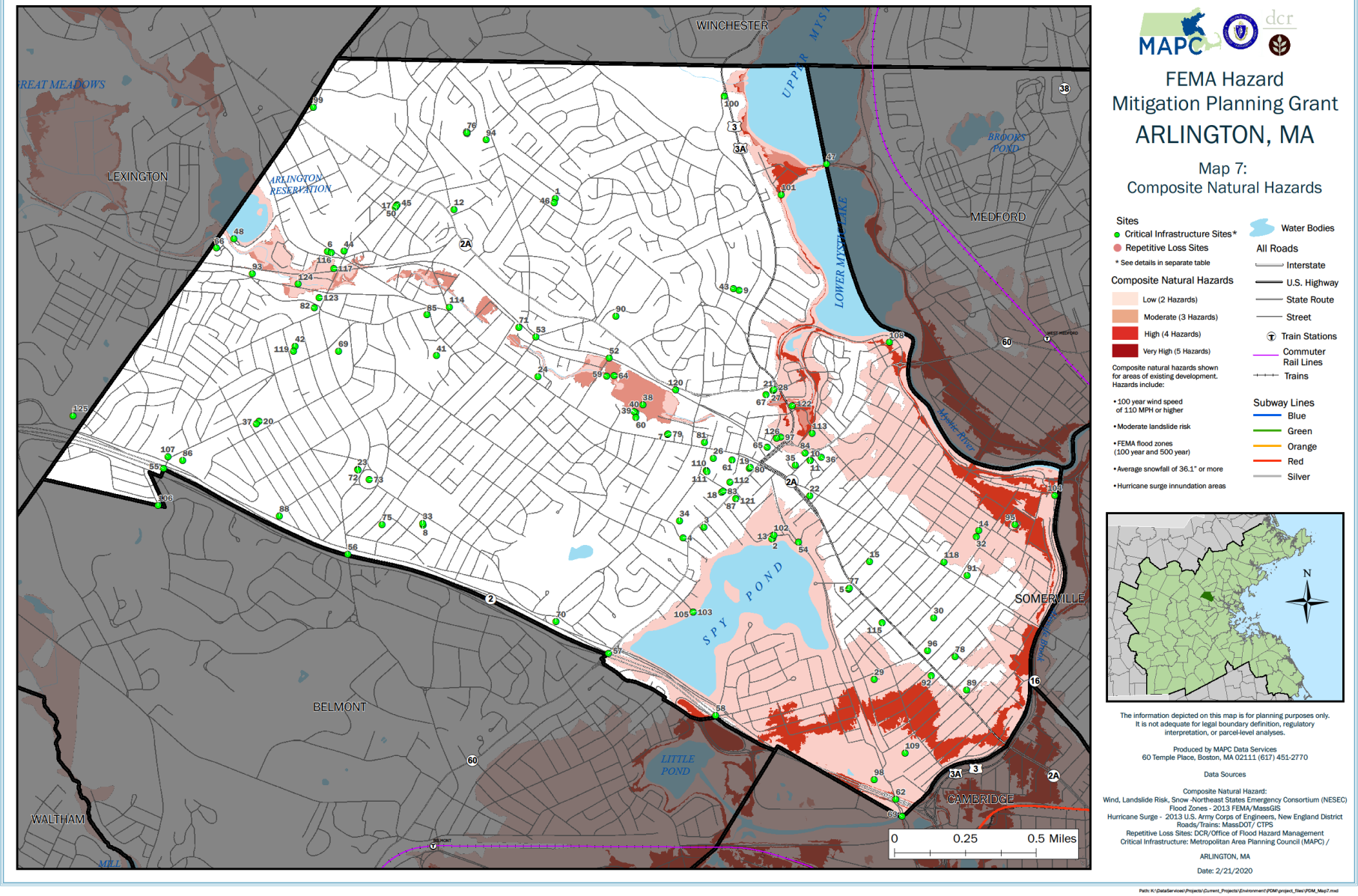

WINCHESTER
LEXINGTON
MEDFORD
SOMERVILLE
BELMONT
WALTHAM
CAMBRIDGE
0 0.15 0.3 0.6 Miles
N
MAPC
dcr
FEMA Hazard
Mitigation Planning Grant
ARLINGTON, MA
Map 2: Land Use
Sites
Critical Infrastructure
RepetitiveLossSites
Development Areas
* See details in separate table
Water Bodies
All Roads
Interstate
U.S. Highway
State Route
Streets
Rail
Stations
Commuter Rail
Land Use
High Density Residential
Medium Density Residential
Low Density Residential
Non-Residential Developed
Commercial
Industrial
Transportation
Agriculture
Undeveloped
Undeveloped Wetlands
The information depicted on this map is for planning purposes only. It is not adequate for legal boundary definition, regulatory interpretation, or parcel-level analyses.
Produced by MAPC Data Services
60 Temple Place, Boston, MA 02111 (617) 451-2770
Data Sources:
Metropolitan Area Planning Council (MAPC)
Massachusetts Geographic Information System (MassGIS)
Northeast States Emergency Consortium (NESEC)
Massachusetts Emergency Management Agency (MEMA)
Federal Emergency Management Agency (FEMA)
ARLINGTON, MA
Date: 2/21/2020

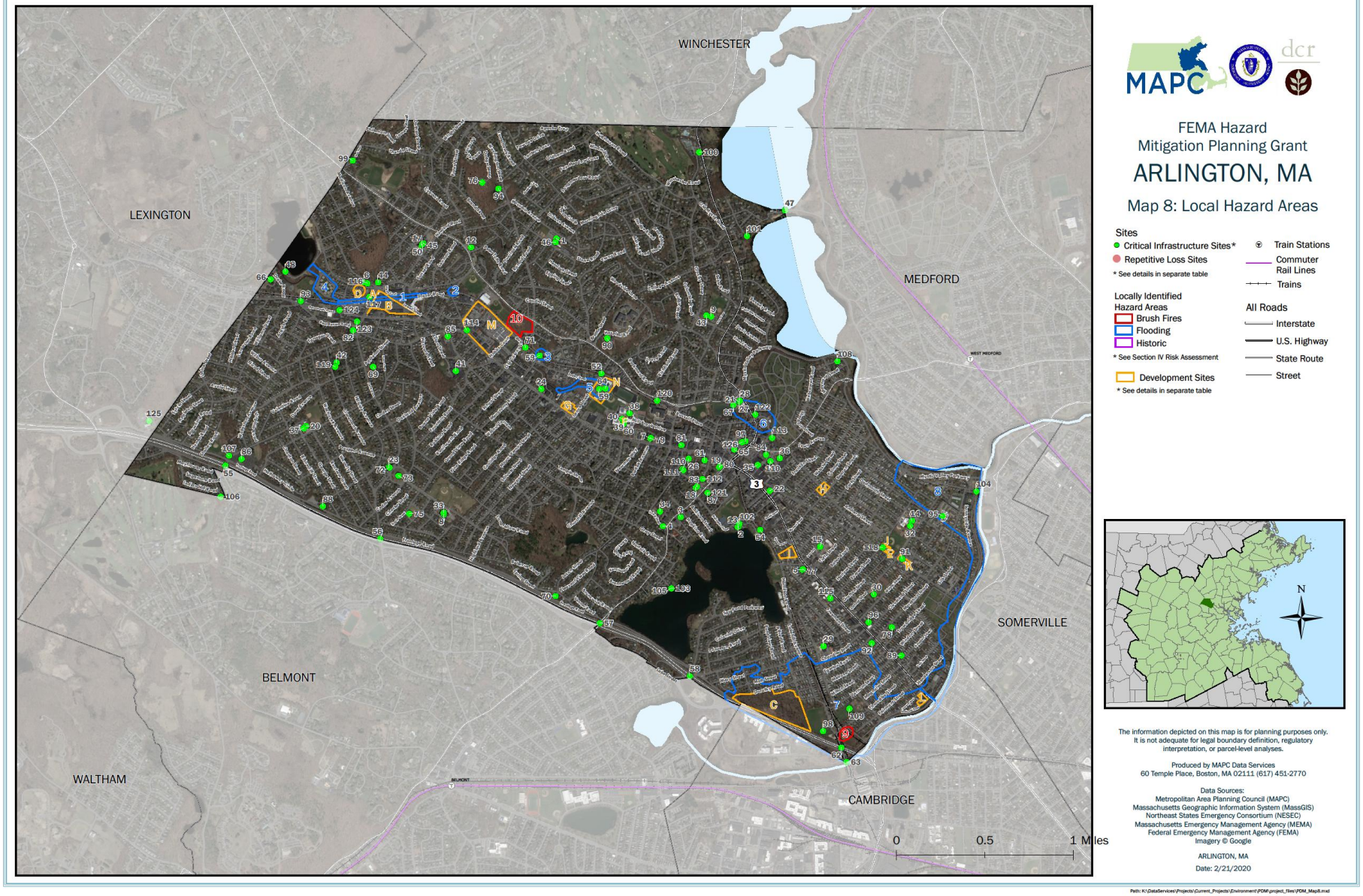

FEMA Hazard
Mitigation Planning Grant
ARLINGTON , MA
Map 3: Flood Zones
Sites
Critical Infrastructure*
RepetitiveLossSites
Development Areas
Locally Identified
* See details in separate table
Flood Zones, 2017
(Annual Chance)
Zone A: 1%
Zone AE: 1%
Zone AH: 1%
Zone AO: 1%
Zone VE: 1% with Velocity Hazard
0.2% Annual Chance
Water Bodies
All Roads
Interstate
U.S. Highway
State Route
Streets
Rail
Stations
Commuter Rail
Trains
Subway Lines
Blue
Green
Orange
Red
Silver
WINCHESTER
LEXINGTON
MEDFORD
SOMERVILLE
BELMONT
WALTHAM
CAMBRIDGE
SPY POND
LITTLE POND
0 0.25 0.5 Miles
The information depicted on this map is for planning purposes only.
It is not adequate for legal boundary definition, regulatory interpretation, or parcel-level analyses.
Produced by MAPC Data Services
60 Temple Place, Boston, MA 02111 (617) 451-2770
Data Sources:
Metropolitan Area Planning Council (MAPC)
Massachusetts Geographic Information System (MassGIS)
Flood Zones datalayer updated by MassGIS October 2013
from finalized data provided by
Federal Emergency Management Agency (FEMA)
ARLINGTON, MA
Date: 2/21/2020

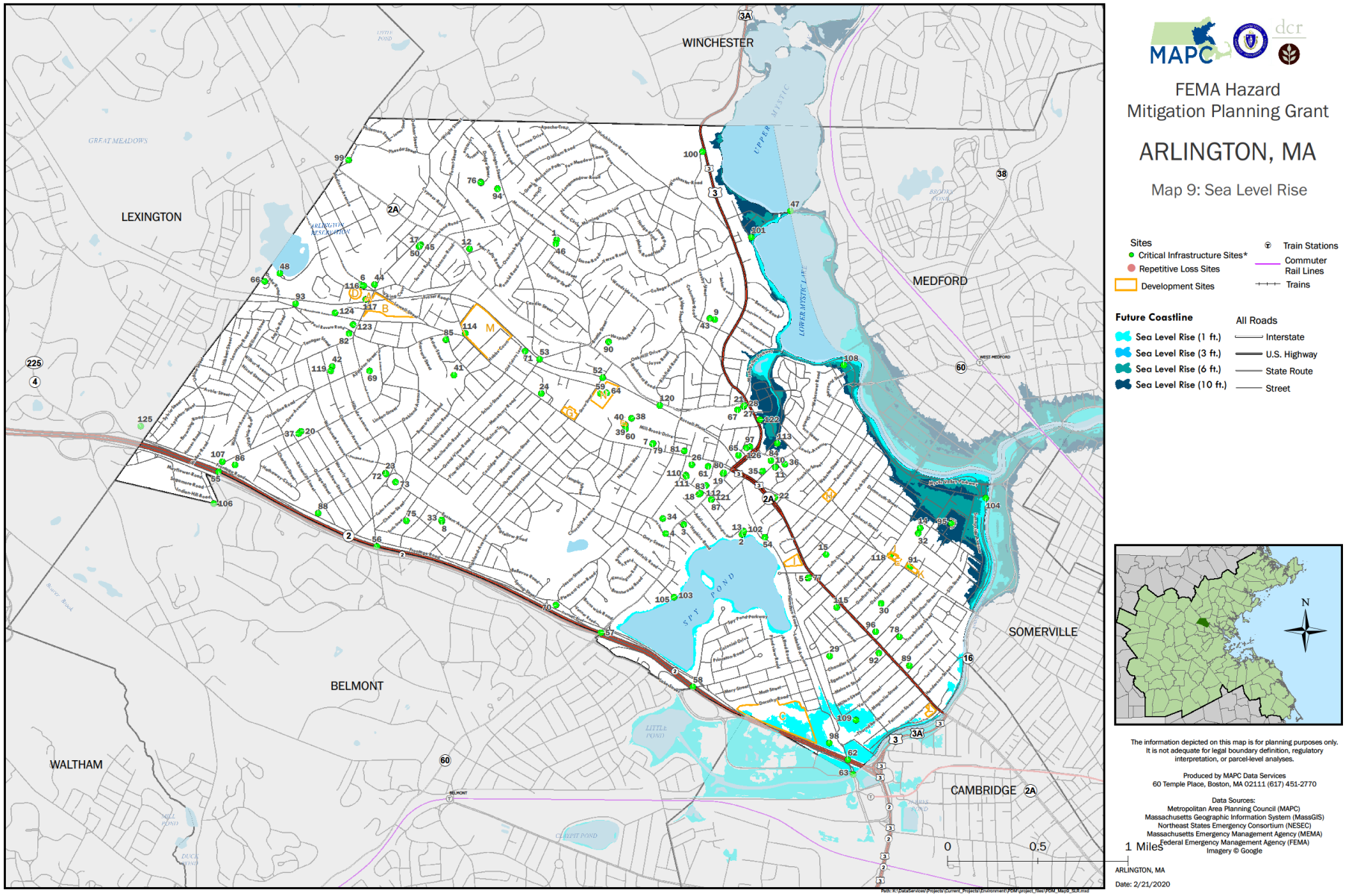

WINCHESTER
LEXINGTON
MEDFORD
BELMONT
WALTHAM
SOMERVILLE
CAMBRIDGE
GREAT MEADOWS
ARLINGTON RESERVATION
UPPER MYSTIC LAKE
LOWER MYSTIC LAKE
BROOKS POND
SPY POND
LITTLE POND
PERRYS POND
Mystic River
0
0.25
0.5 Miles
MAPC
dcr
FEMA Hazard Mitigation Planning Grant
ARLINGTON , MA
Map 4:
Earthquakes / Landslides
Sites
Critical Infrastructure Sites*
* See details in separate table
Train Stations
Commuter Rail Lines
Trains
Water Bodies
All Roads
Interstate
U.S. Highway
State Route
Street
Earthquakes
Epicenters
Landslides
High landslide incidence (greater than 15% of the area is involved in landsliding)
High susceptibility to landsliding and moderate incidence
High susceptibility to landsliding and low incidence
Moderate susceptibility to landsliding and low incidence
Low landslide incidence (less than 1.5 % of the area is involved in landsliding
N
The information depicted on this map is for planning purposes only. It is not adequate for legal boundary definition, regulatory interpretation, or parcel-level analyses.
Produced by MAPC Data Services
60 Temple Place, Boston, MA 02111 (617) 451-2770
Data Sources:
Metropolitan Area Planning Council (MAPC)
Massachusetts Geographic Information System (MassGIS)
Northeast States Emergency Consortium (NESEC)
Massachusetts Emergency Management Agency (MEMA)
Federal Emergency Management Agency (FEMA)
Date: 2/21/2020
ARLINGTON, MA


WINCHESTER
LEXINGTON
MEDFORD
SOMERVILLE
BELMONT
CAMBRIDGE
WALTHAM
GREAT MEADOWS
ARLINGTON RESERVATION
UPPER MYSTIC LAKE
LOWER MYSTIC LAKE
BROOKS POND
SPY POND
LITTLE POND
1861
0
0.25
0.5 Miles
MAPC
dcr
FEMA Hazard Mitigation Planning Grant
ARLINGTON , MA
Map 5:
Hurricanes / Tornadoes
Sites
Critical Infrastructure Sites*
Repetitive Loss Sites
* See details in separate table
Train Stations
Commuter Rail Lines
Trains
Tornadoes
Tornado
Storm Tracks
Tropical Depression
Tropical Storm
Category 1 Hurricane
Category 2 Hurricane
Category 3 Hurricane
Year of storm noted on map
Hurricane Surge Inundation Area
Water Bodies
100 Year Wind Speeds
Miles Per Hour
90 MPH
100 MPH
110 MPH
120 MPH
130 MPH
N
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Produced by MAPC Data Services
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Data Sources:
Metropolitan Area Planning Council (MAPC)
Massachusetts Geographic Information System (MassGIS)
Northeast States Emergency Consortium (NESEC)
Massachusetts Emergency Management Agency (MEMA)
Federal Emergency Management Agency (FEMA)
Date: 2/21/2020


WINCHESTER
LEXINGTON
MEDFORD
SOMERVILLE
CAMBRIDGE
BELMONT
WALTHAM
UPPER MYSTIC LAKE
LOWER MYSTIC LAKE
SPY POND
LITTLE POND
0
0.25
0.5 Miles
MAPC
dcr
FEMA Hazard Mitigation Planning Grant
ARLINGTON, MA
Map 6: Average Snowfall
Sites
Critical Infrastructure Sites*
* See details in separate table
Average Annual Snowfall
36.1 to 48.0 inches
48.1 to 72.0 inches
Water Bodies
Train Stations
Commuter Rail Lines
Trains
All Roads
Interstate
U.S. Highway
State Route
Street
N
The information depicted on this map is for planning purposes only. It is not adequate for legal boundary definition, regulatory interpretation, or parcel-level analyses.
Produced by MAPC Data Services
60 Temple Place, Boston, MA 02111 (617) 451-2770
Data Sources:
Metropolitan Area Planning Council (MAPC)
Massachusetts Geographic Information System (MassGIS)
Northeast States Emergency Consortium (NESEC)
Massachusetts Emergency Management Agency (MEMA)
Federal Emergency Management Agency (FEMA)
ARLINGTON, MA
Date: 2/21/2020


WINCHESTER
LEXINGTON
ARLINGTON RESERVATION
GREAT MEADOWS
MEDFORD
BROOKS POND
UPPER MYSTIC LAKE
LOWER MYSTIC LAKE
Mystic River
SOMERVILLE
SPY POND
BELMONT
LITTLE POND
CAMBRIDGE
WALTHAM
0
0.25
0.5 Miles
MAPC
dcr
FEMA Hazard Mitigation Planning Grant
ARLINGTON, MA
Map 7: Composite Natural Hazards
Sites
Critical Infrastructure Sites*
Repetitive Loss Sites
* See details in separate table
Composite Natural Hazards
Low (2 Hazards)
Moderate (3 Hazards)
High (4 Hazards)
Very High (5 Hazards)
Composite natural hazards shown for areas of existing development. Hazards include:
• 100 year wind speed of 110 MPH or higher
• Moderate landslide risk
• FEMA flood zones (100 year and 500 year)
• Average snowfall of 36.1" or more
• Hurricane surge innundation areas
Water Bodies
All Roads
Interstate
U.S. Highway
State Route
Street
Train Stations
Commuter Rail Lines
Trains
Subway Lines
Blue
Green
Orange
Red
Silver
N
The information depicted on this map is for planning purposes only. It is not adequate for legal boundary definition, regulatory interpretation, or parcel-level analyses.
Produced by MAPC Data Services
60 Temple Place, Boston, MA 02111 (617) 451-2770
Data Sources
Composite Natural Hazard:
Wind, Landslide Risk, Snow -Northeast States Emergency Consortium (NESEC)
Flood Zones - 2013 FEMA/MassGIS
Hurricane Surge - 2013 U.S. Army Corps of Engineers, New England District
Roads/Trains: MassDOT/ CTPS
Repetitive Loss Sites: DCR/Office of Flood Hazard Management
Critical Infrastructure: Metropolitan Area Planning Council (MAPC) /
ARLINGTON, MA
Date: 2/21/2020


WINCHESTER
LEXINGTON
MEDFORD
SOMERVILLE
BELMONT
WALTHAM
CAMBRIDGE
0
0.5
1 Miles
MAPC
dcr
FEMA Hazard
Mitigation Planning Grant
ARLINGTON, MA
Map 8: Local Hazard Areas
Sites
Critical Infrastructure Sites*
Repetitive Loss Sites
* See details in separate table
Locally Identified
Hazard Areas
Brush Fires
Flooding
Historic
* See Section IV Risk Assessment
Development Sites
* See details in separate table
Train Stations
Commuter
Rail Lines
Trains
All Roads
Interstate
U.S. Highway
State Route
Street
N
The information depicted on this map is for planning purposes only.
It is not adequate for legal boundary definition, regulatory
interpretation, or parcel-level analyses.
Produced by MAPC Data Services
60 Temple Place, Boston, MA 02111 (617) 451-2770
Data Sources:
Metropolitan Area Planning Council (MAPC)
Massachusetts Geographic Information System (MassGIS)
Northeast States Emergency Consortium (NESEC)
Massachusetts Emergency Management Agency (MEMA)
Federal Emergency Management Agency (FEMA)
Imagery © Google
ARLINGTON, MA
Date: 2/21/2020



MAPC

FEMA Hazard Mitigation Planning Grant

ARLINGTON, MA

Map 9: Sea Level Rise

Sites
- Critical Infrastructure Sites*
- Repetitive Loss Sites
- Development Sites

- Train Stations
- Commuter Rail Lines
- Trains

Future Coastline
- Sea Level Rise (1 ft.)
- Sea Level Rise (3 ft.)
- Sea Level Rise (6 ft.)
- Sea Level Rise (10 ft.)

All Roads
- Interstate
- U.S. Highway
- State Route
- Street

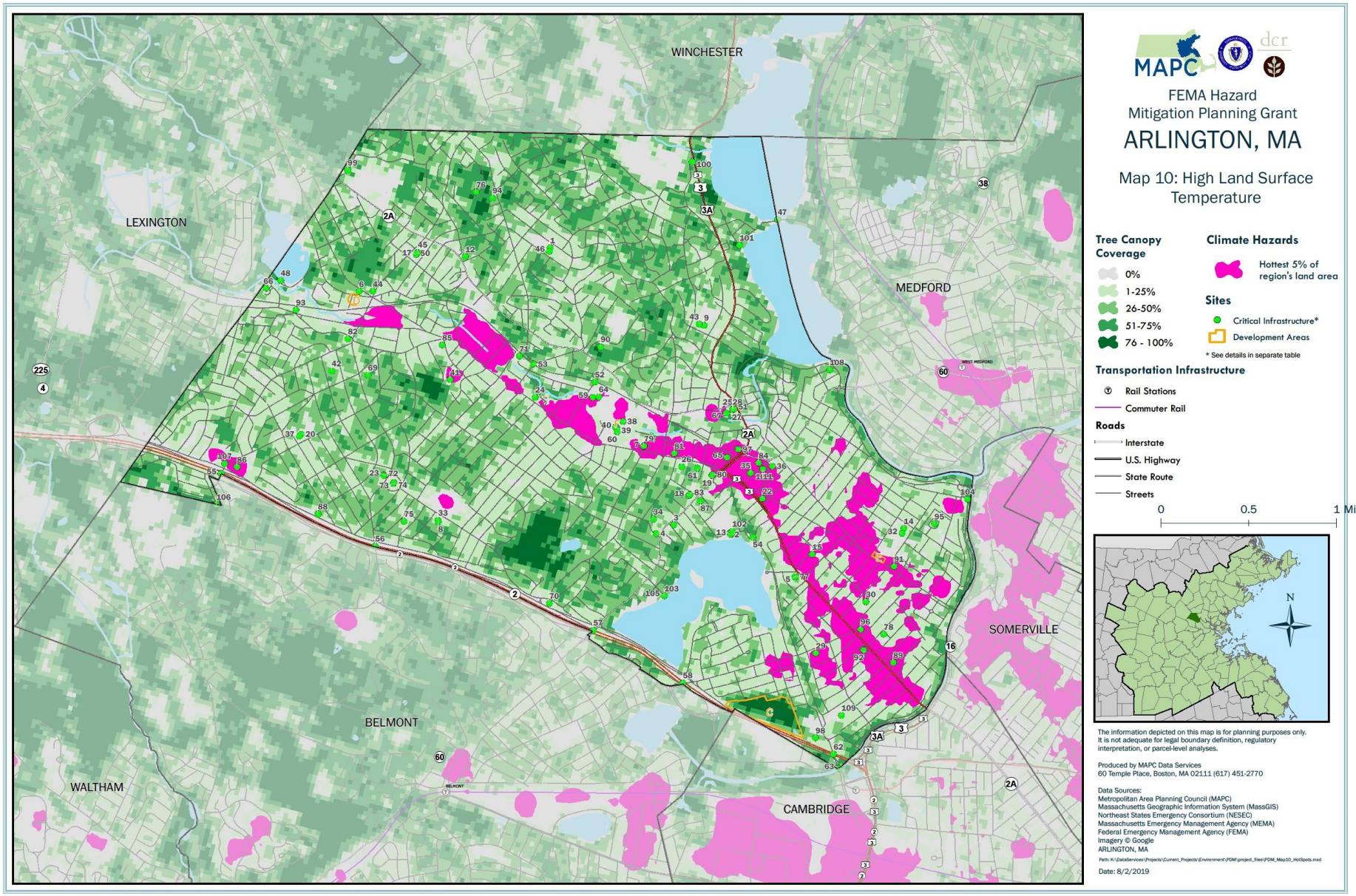
The information depicted on this map is for planning purposes only. It is not adequate for legal boundary definition, regulatory interpretation, or parcel-level analyses.

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Data Sources:
Metropolitan Area Planning Council (MAPC)
Massachusetts Geographic Information System (MassGIS)
Northeast States Emergency Consortium (NESEC)
Massachusetts Emergency Management Agency (MEMA)
Federal Emergency Management Agency (FEMA)
Imagery © Google

ARLINGTON, MA

Date: 2/21/2020


WINCHESTER
LEXINGTON
MEDFORD
SOMERVILLE
BELMONT
WALTHAM
CAMBRIDGE
MAPC
dcr
FEMA Hazard
Mitigation Planning Grant
ARLINGTON, MA
Map 10: High Land Surface Temperature
Tree Canopy Coverage
0%
1-25%
26-50%
51-75%
76 - 100%
Climate Hazards
Hottest 5% of region's land area
Sites
Critical Infrastructure*
Development Areas
* See details in separate table
Transportation Infrastructure
Rail Stations
Commuter Rail
Roads
Interstate
U.S. Highway
State Route
Streets
0
0.5
1 Mi
N
The information depicted on this map is for planning purposes only. It is not adequate for legal boundary definition, regulatory interpretation, or parcel-level analyses.
Produced by MAPC Data Services
60 Temple Place, Boston, MA 02111 (617) 451-2770
Data Sources:
Metropolitan Area Planning Council (MAPC)
Massachusetts Geographic Information System (MassGIS)
Northeast States Emergency Consortium (NESEC)
Massachusetts Emergency Management Agency (MEMA)
Federal Emergency Management Agency (FEMA)
Imagery © Google
ARLINGTON, MA
Date: 8/2/2019

APPENDIX B: LOCAL TEAM MEETING AGENDAS

Agendas for the
Arlington Local Hazard Mitigation Team meetings

March 12, 2019
June 27, 2019
September 24,2019

Arlington Hazard Mitigation Plan Update

Local Hazard Mitigation Planning Team

AGENDA
Meeting #1

March 12, 2019
1:00 to 2:30 PM

Arlington Town Hall
2nd Floor Conference Room

1. Review Project Scope of Work and Schedule

2. Update Critical Facilities Inventory and Mapping

3. Identify/update local hazards:

a) Flood Hazard Areas
b) Fire Hazard Areas (brushfires/wildfires)
c) Dams
d) Extreme Heat
e) Other hazards

4. Identify/Update New and Potential Development Sites

5. Discuss Public Involvement and Outreach

a) Identify local stakeholders
b) Schedule first public meeting

Arlington Local Hazard Mitigation Team

Team Meeting#2
June 27, 2019
10:00 AM

Arlington Town Hall
2nd Floor Conference Room

10:00 Introductions

10:05 Presentation of Flood Claims Data for the 2010 Storms

Anne Herbst, Senior Environmental Planner, will present a summary of the FEMA flood claims data for the March/April 2010 storms in Arlington.

10:30 Review and Update of Mitigation from the 2012 Plan

Update the *Existing* Mitigation Measures from the 2012 plan

Status of the *Recommended* Mitigation Measures from the 2012 plan

10:45 Next Steps

Fall 2019, Team Meeting #3 (final) and Final Public Meeting

11:50 Adjourn

Arlington Hazard Mitigation Plan Update

Local Hazard Mitigation Planning Team

Team Meeting#3

September 24, 2019
1:00 - 2:30 PM

Arlington Town Hall
2nd Floor Conference Room

AGENDA

1. Review and Update the Hazard Mitigation Strategy

a) Update Mitigation Measures in the previous plan (Table 1)
b) Add new Mitigation Measures for the 2019 plan (Table 2)
c) Consider MVP Recommendations (see MVP summary)
d) Identify time frames, cost estimates, lead agencies
e) Prioritize recommended mitigation

2. Review and Update Hazard Mitigation Goals

3. Public Involvement and Outreach

a) Identify local stakeholders
b) Schedule second public meeting

4. Adjourn

APPENDIX C: DOCUMENTATION OF PUBLIC MEETINGS

Arlington Public Meetings

June 13, 2019
January 27, 2020

Agendas
Meeting Flyers
Meeting Notices
Meeting Presentation
Engagement Exercise Results

Arlington Hazard Mitigation Plan Update

Public Meeting

June 13, 2019
7:00 PM

Arlington Senior Center
Central School
27 Maple Street

AGENDA

7:00 Introductions; Hazard Mitigation overview; orientation for engagement exercise

7:10 Participants mark up maps and posters to show their values and concerns

7:30 Review and discuss the exercise, summarize results

7:45 PowerPoint presentation on Hazard Mitigation Plan

8:10 Questions and discussion on the plan

8:25 Next Steps

8:30 Adjourn

Hazard Mitigation Plan
Public Meeting

Natural hazards can have serious impacts on the Town of Arlington and its residents and businesses





The Town of Arlington is preparing a Hazard Mitigation Plan update to help the town reduce its vulnerability to natural hazards such as flooding, hurricanes, and winter storms. Please join the Town for a presentation and discussion about the Hazard Mitigation Plan update at a public meeting. Your input and suggestions for the plan are welcome, please join us!

Date:	Thursday, June 13, 2019
Time:	7:00 pm
Location:	Senior Center, Main Room Central School 27 Maple St, Arlington, MA

For more information, please contact
Emily Sullivan at Esullivan@town.arlington.ma.us

MAPC
METROPOLITAN AREA PLANNING COUNCIL

Amanda Linehan, Communications Manager, Metropolitan Area Planning Council
617-933-0705, alinehan@mapc.org

CALENDAR LISTING / MEDIA ADVISORY

ARLINTON'S HAZARD MITIGATION PLAN TO BE DISCUSSED AT JUNE 13 PUBLIC MEETING

Who: Arlington residents, business owners, non-profit organizations and institutions, and others who are interested in preventing and reducing damage from natural hazards.

What: At a public meeting on Thursday, June 13 at 7:00 PM, a presentation on the Town's Hazard Mitigation Plan will be made by the Metropolitan Area Planning Council (MAPC), which is assisting the Town with the preparation of an updated plan. There will be an opportunity for questions and discussion with MAPC and Town staff following the presentation.

The Town of Arlington is preparing an updated Hazard Mitigation plan that will document natural hazards that affect the Town, such as floods, hurricanes, and winter storms, as well as actions that the Town can take to reduce its vulnerability to these hazards. Once completed and approved by the Federal Emergency Management Agency (FEMA), the Town will be eligible for federal Hazard Mitigation Grants from FEMA.

When: Thursday, June 13, 2019, 7:00 PM

Where: Senior Center, Main Room
Central School
27 Maple Street, Arlington, MA

MAPC is the regional planning agency for 101 communities in the metropolitan Boston area, promoting smart growth and regional collaboration. More information about MAPC is available at www.mapc.org.

##

Arlington Hazard Mitigation Plan
Public Meeting Notification

Dear Town of Arlington stakeholder:

The Arlington Hazard Mitigation Plan is being updated to help the town reduce its vulnerability to natural hazard events such as flooding, hurricanes and winter storms. Natural hazards can have serious impacts on the Town of Arlington and its residents and businesses. The Metropolitan Area Planning Council (MAPC) is assisting the Town in the preparation of the updated plan.

Please join the Town for a presentation and discussion on the Arlington Hazard Mitigation Plan Update at a public meeting on the following date and location:

Thursday, June 13 at 7:00 PM
Arlington Senior Center
Central School
27 Maple Street, Arlington, MA

Please feel free to forward the attached flyer to other residents, business owners and anyone who may interested in preventing and reducing damage from natural hazards in Arlington.

Best regards,
Martin Pillsbury

Martin Pillsbury | **Director of Environmental Planning**
Metropolitan Area Planning Council
60 Temple Place | Boston, MA 02111
617.933.0747 | mpillsbury@mapc.org | www.mapc.org

MAPC 50 YEARS
METROPOLITAN AREA PLANNING COUNCIL
SMART GROWTH AND REGIONAL COLLABORATION

Arlington Public Meeting #1 June 13, 2019

Summary of Public Engagement Exercise

At the first public meeting, participants were invited to review the Existing Conditions maps of Arlington and annotate on one map the town's strengths, and on another map, their top concerns for natural hazards and climate impacts in Arlington. The annotated maps are shown below, and the results are summarized here:

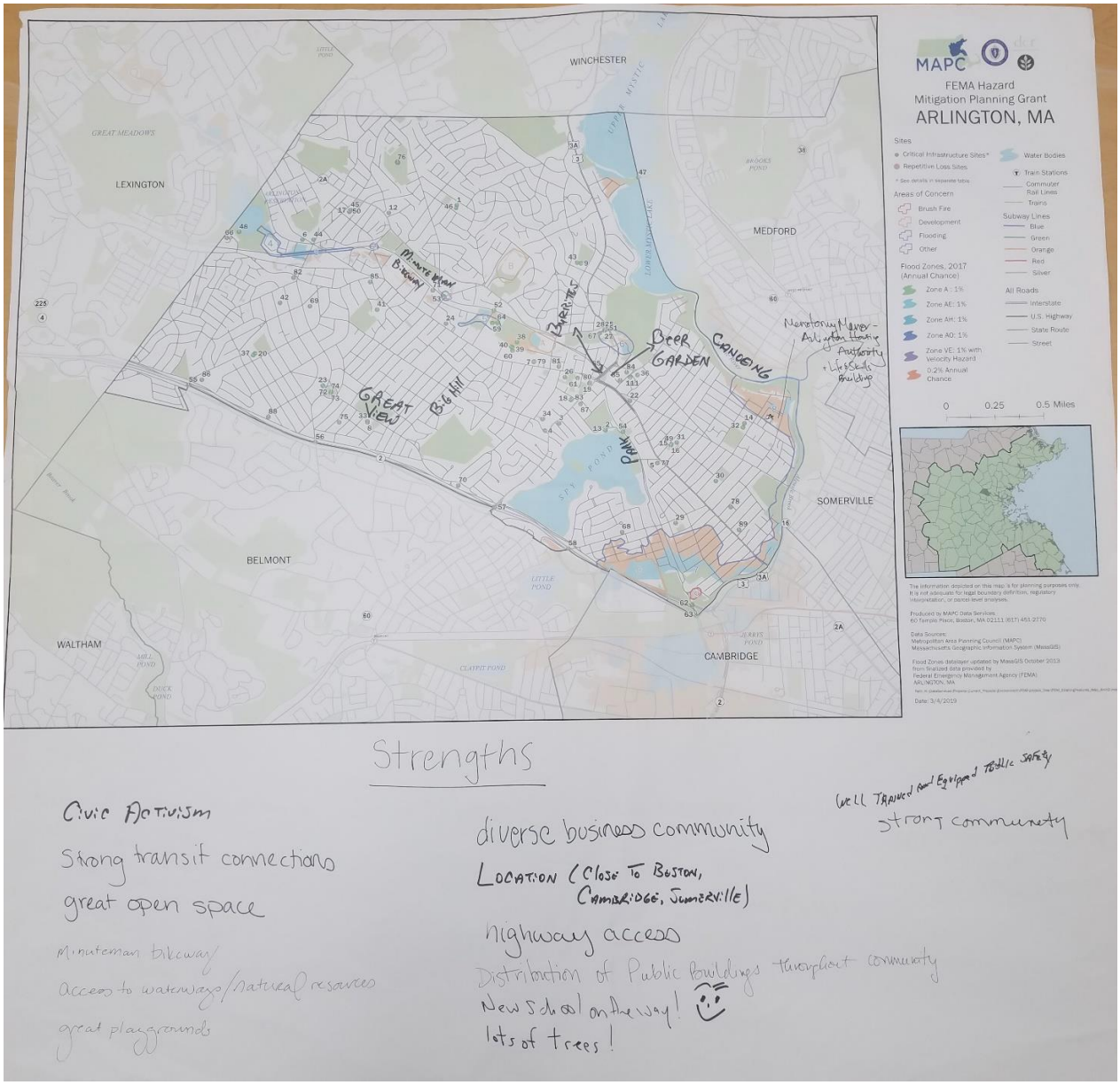
Arlington's Strengths

- ☐ Civic activism
- ☐ Strong community
- ☐ Well-trained and equipped Public Safety
- ☐ Strong transit connections
- ☐ Lots of trees
- ☐ Great Open Space
- ☐ Minuteman Bikeway
- ☐ Access to waterways/natural resources - canoeing
- ☐ Great playgrounds
- ☐ Hills with great views
- ☐ Diverse business community
- ☐ Location close to Boston, Cambridge, Somerville
- ☐ Highway access
- ☐ Distribution of public buildings throughout community
- ☐ Menotomy Manor-Arlington Housing, Life Skills Building
- ☐ New school on the way

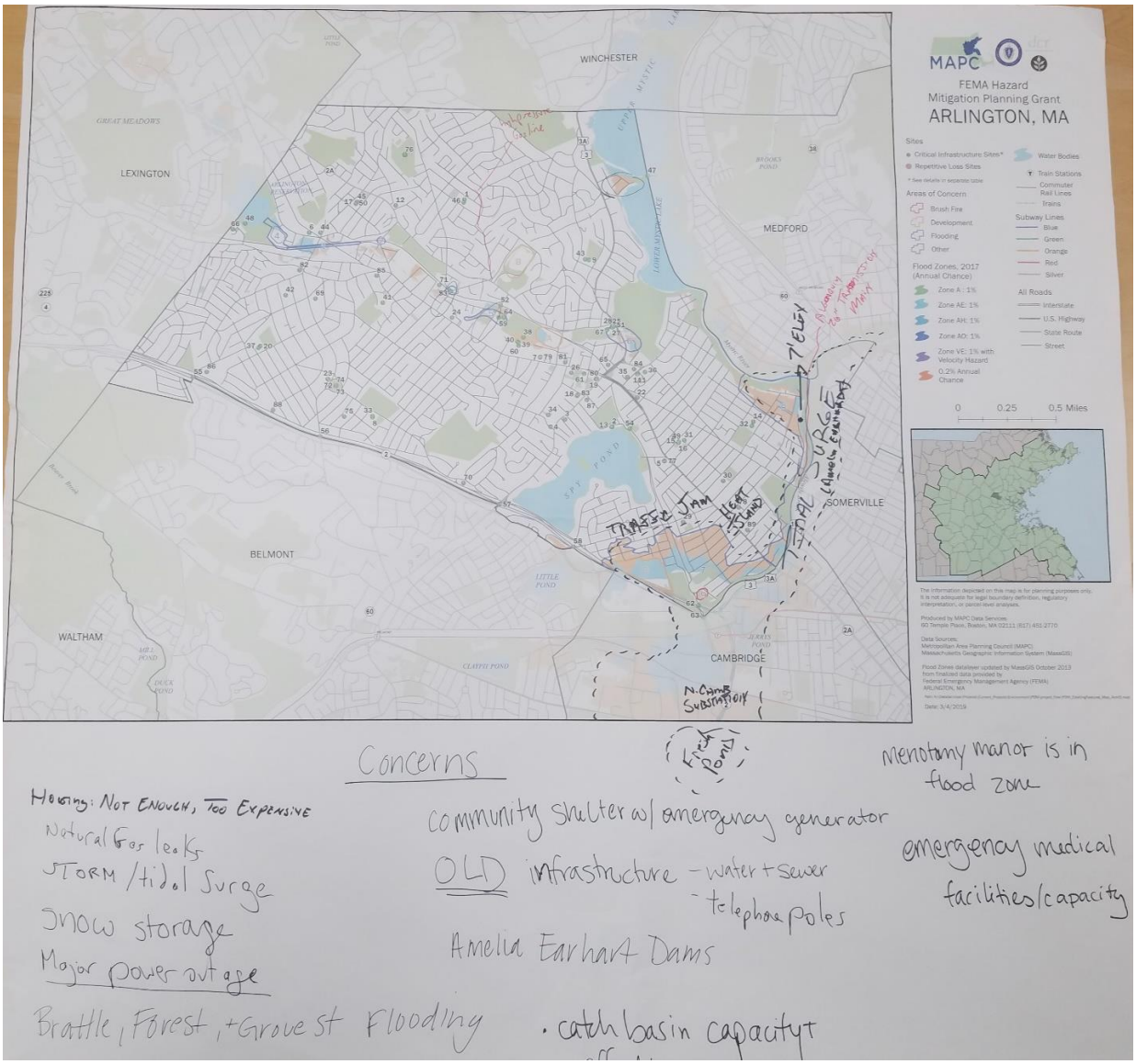
Top Concerns for Arlington

- ☐ Brattle, Forest, and Grove Street flooding
- ☐ Menotomy Manor is in flood zone
- ☐ Catch basin capacity and effectiveness
- ☐ Major power outage
- ☐ Heat island
- ☐ Snow storage
- ☐ Old infrastructure – water, sewer, telephone poles
- ☐ Storm / tidal surge
- ☐ Community shelter/emergency generator
- ☐ Emergency medical facilities/capacity
- ☐ Housing-not enough, too expensive
- ☐ Natural Gas leaks/Algonquin 26-inch gas transmission main
- ☐ Amelia Earhart Dam
- ☐ North Cambridge substation
- ☐ Traffic jams

Arlington Public Meeting #1
Annotated Map - Strengths



Arlington Public Meeting #1
Annotated Map - Concerns



Arlington Public Meeting #2
January 27, 2020

Town of Arlington
Select Board

Meeting Agenda

January 27, 2020
7:15 PM
Select Board Chambers, 2nd Floor, Town Hall

CONSENT AGENDA

1. Minutes of Meetings: January 6, 2020

2. Reappointments (terms to expire 1/31/2023)

 Commission on Disabilities
 Karen Mathiasen
 LGBTQIA+Rainbow Commission
 Helene Newberg
 Open Space Committee
 Elisabeth Carr-Jones
 Park and Recreation Commission
 Shirley Canniff
 Redevelopment Board
 Eugene Benson
 Andrew Bunnell

3. For Approval: Contractor/Drainlayer License Renewal

 Michael McDougall, McDougall Bros. Enterprises, LLC, Marshfield, MA

4. Request: Special (One Day) All Alcohol License, 2/1/20 @ Arlington Catholic High School for 'Quiz Night'

 Elizabeth Flynn, Director of Advancement, Arlington Catholic High School

5. Request: Special (One Day) Beer & Wine License, 2/1/20 @ Robbins Memorial Town Hall for Arlington Center for the Arts 'Blue Jean Ball'

 Lisa Pedulla, Arlington Center for the Arts

6. Request: Special (One Day) Beer & Wine License, 2/22/20 at Robbins Memorial Town Hall for a Private Event

 Daniel Vagle

7. For Approval: Black History Month Banners

 Crystal Haynes, Arlington Human Rights Commissioner

PUBLIC HEARINGS

8. 7:15 p.m. CDBG - Performance Update for Program Year 2019-2020

 Jenny Raitt, Director of Planning & Community Development

Arlington Public Meeting #2
January 27, 2020

9. 7:15 p.m. CDBG - Requests for FY2020-2021 Funding
 Jenny Raitt, Director of Planning & Community Development

APPOINTMENTS

10. Zoning Board of Appeals, Alternate Member to Voting Member
 Kevin Mills (term to expire 10/31/2021)

CITIZENS OPEN FORUM

Except in unusual circumstances, any matter presented for consideration of the Board shall neither be acted upon, nor a decision made the night of the presentation in accordance with the policy under which the Open Forum was established. It should be noted that there is a three minute time limit to present a concern or request.

TRAFFIC RULES & ORDERS / OTHER BUSINESS

11. Discussion & Approval: Hazard Mitigation Plan
 Martin Pillsbury, Metropolitan Area Planning Council
 Jenny Raitt, Director of Planning & Community Development
 Emily Sullivan, Environmental Planner/Conservation Agent
12. Debrief and Follow-up from Joint Meeting with Redevelopment Board on January 13, 2020
 Adam W. Chapdelaine, Town Manager
13. Fiscal Year 2020 Quarterly Budget Report
 Sandy Pooler, Deputy Town Manager
 Ida Cody, Comptroller
14. FY 2021 Town Manager's Budget Presentation
 Adam W. Chapdelaine, Town Manager
15. For Approval: Acceptance of Bequest from the Daniel Strassberg Trust for the Robbins Library and Authorization for Release and Receipt
 Douglas W. Heim, Town Counsel
16. For Discussion and Approval: Potential 2020 Town Meeting Warrant Articles from the Select Board
 Douglas W. Heim Town Counsel

NEW BUSINESS

EXECUTIVE SESSION

A. Consideration of purchase, exchange, lease or value of real property;

B. To comply with, or act under the authority of, any general or special law or federal grant-in-aid requirements: Approval of Executive Session Minutes of January 2, 2020

Next Scheduled Meeting of Select Board February 10, 2020

Arlington Public Meeting #2
January 27, 2020

Amanda Linehan, Communications Manager, Metropolitan Area Planning Council
617-933-0705, alinehan@mapc.org

CALENDAR LISTING / MEDIA ADVISORY

ARLINGTON'S HAZARD MITIGATION PLAN TO BE DISCUSSED AT JANUARY 27 PUBLIC MEETING

Who: Arlington residents, business owners, non-profit organizations and institutions, and others who are interested in preventing and reducing damage from natural hazards.

What: At a public meeting on Monday, January 27 at 7:15 PM, a presentation on the *Arlington Draft Hazard Mitigation Plan, 2020 Update* will be hosted by the Select Board. The presentation will be made by the Metropolitan Area Planning Council (MAPC), which is assisting the Town with the preparation of the updated Hazard Mitigation Plan. There will be an opportunity for questions and discussion following the presentation.

The Town of Arlington has prepared the draft Hazard Mitigation plan to document natural hazards that affect the Town, such as floods, hurricanes, and severe winter storms, and to recommend actions that the Town can take to reduce its vulnerability to these hazards. Once completed and approved by the Federal Emergency Management Agency (FEMA), the Town will be eligible for federal Hazard Mitigation Grants from FEMA.

When: Monday, January 27, 2020, 7:15 PM

Where: Arlington Town Hall
Select Board Chambers, 2nd Floor
Massachusetts Avenue, Arlington, MA

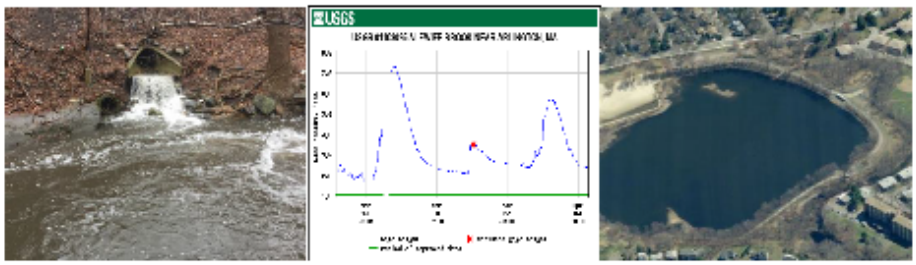
MAPC is the regional planning agency for 101 communities in the metropolitan Boston area, promoting smart growth and regional collaboration. More information about MAPC is available at www.mapc.org.

##

Arlington Public Meeting #2
January 27, 2020

Hazard Mitigation Plan
Public Meeting

Natural hazards can have serious impacts on the Town of Arlington and its residents and businesses



The Town of Arlington has prepared a draft Hazard Mitigation Plan to help the town reduce its vulnerability to natural hazards such as flooding, hurricanes, and winter storms. Please join the Select Board for a public presentation of the Hazard Mitigation Plan. Your questions and suggestions for the draft plan are welcome, please join us!

Date:	Monday, January 27, 2020
Time:	7:15 pm
Location:	Arlington Town Hall Select Board Chambers, 2nd Floor 730 Massachusetts Ave, Arlington, MA

For more information, please contact
Emily Sullivan at Esullivan@town.arlington.ma.us

MAPC
METROPOLITAN AREA PLANNING COUNCIL

Arlington Public Meeting #2
January 27, 2020

SMART GROWTH AND REGIONAL COLLABORATION

TO: City and Town Clerks in Belmont, Cambridge, Lexington, Medford, Somerville, and Winchester,

The Town of Arlington is preparing its *Hazard Mitigation Plan 2020 Update* to reduce the town's vulnerability to natural hazards such as flooding, hurricanes, and winter storms.

As part of the planning process, Arlington's neighboring communities are being notified of a public meeting on the draft plan to be hosted by the Arlington Select Board as follows:

Monday, January 27, 2020 at 7:15 PM
Arlington Town Hall
Select Board Chambers, 2nd Floor
Massachusetts Avenue, Arlington, MA

The plan will identify a set of hazard mitigation measures, including structural improvements, regulatory changes, and public education efforts related to mitigating natural hazards.

A flyer announcing the meeting details is attached. If you have any questions about this please feel free to contact me.

Best regards,

Martin Pillsbury

Martin Pillsbury
Director of Environmental Planning
Metropolitan Area Planning Council
60 Temple Place
Boston, MA 02111
617.933.0747
mpillsbury@mapc.org

Keith Bergman, President | Erin Wortman, Vice President | Taber Keally, Treasurer | Sandra Hackman, Secretary | Marc Draisen, Executive Director
Metropolitan Area Planning Council | 60 Temple Place | Boston, Massachusetts 02111 | 617-933-0700 | 617-482-7185 fax | mapc.org

Arlington Hazard Mitigation Plan 2020 Update

Public Meeting
Arlington Select Board
January 27, 2020

Martin Pillsbury
Metropolitan Area Planning Council

Why is Arlington doing this Plan?

- The **Federal Disaster Mitigation Act of 2000** requires towns to adopt a Hazard Mitigation Plan to be eligible for FEMA mitigation grants.
- Arlington's first plan was approved by FEMA in 2012 and now must be updated
- This updated plan will meet FEMA's requirements and make the Town eligible for FEMA mitigation grants



A Plan for Mitigating Damages from Natural Hazards

- Flooding
- High winds, hurricanes, tornadoes
- Winter storms, snow & ice
- Brush fires
- Earthquakes, landslides
- Extreme temperatures
- Drought



A Mitigation Plan , not an Emergency Response Plan

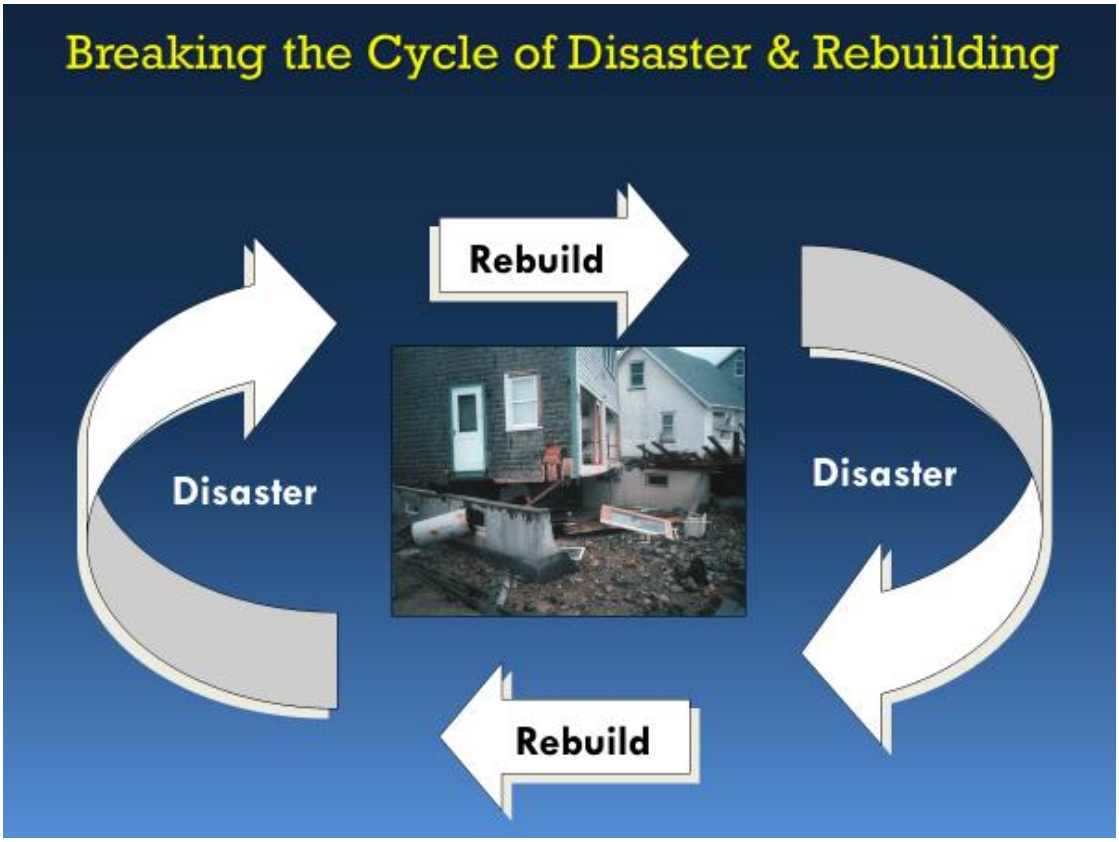
What is Hazard Mitigation?



To reduce or prevent loss of life, injuries and property damage by using long-term strategies ***before*** a disaster happens **(Pre-Disaster Mitigation)**

What preventive actions are being taken **NOW** to reduce future risks and damages?

What additional actions can be taken in the **FUTURE** to reduce vulnerability and increase resilience?


Breaking the Cycle of Disaster & Rebuilding
Rebuild
Disaster
Disaster
Rebuild


Six Tools & Techniques for Hazard Mitigation
1. Prevention
2. Property Protection
3. Public Education
4. Natural Resources Protection
5. Structural Projects
6. Emergency Services Protection

How the Plan Was Developed

- The Town coordinated the plan through its Hazard Mitigation Team, with multiple Town departments.
- MAPC provided technical assistance to the Town to prepare the plan under a MEMA grant.
- Two public meetings, the first in June 2019 during plan development, and the second (tonight) for review of the draft plan.
- Next Steps: submittal of the draft plan to MEMA and FEMA for review and approval, adoption by the Town.

Plan Development Steps

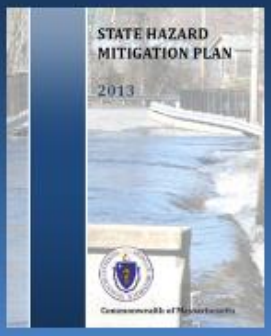


Hazard Identification & Mapping

- State & Federal data on floodplains, snowfall, wind speeds, hurricanes earthquakes, etc.



- Massachusetts State Hazard Mitigation Plan



- Coordinate with Local Team to get *local* information on hazard areas and Critical Facilities

Critical Facilities

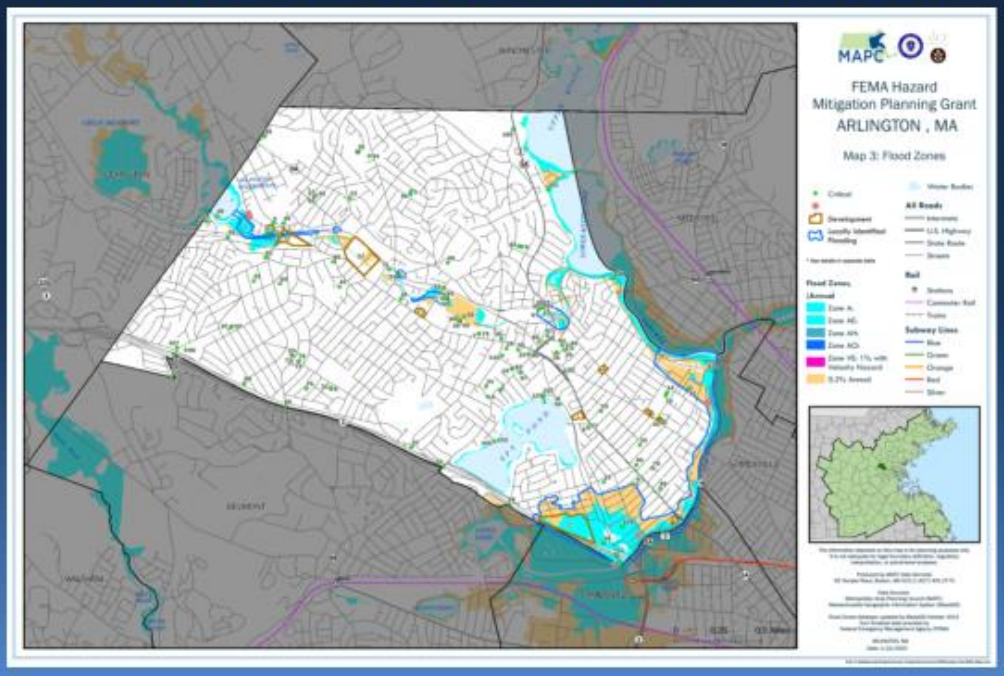
106 sites identified including:

- Disaster response sites such as fire and police stations
- Sites requiring assistance, such as elderly housing
- Critical infrastructure (Dams, pump stations, communications)



A Place to Grow	Menotomy Preschool	Bellington St Underground Tank
ABC Pre-school	LABBB Collaborative	Turkey Hill Water Storage Tank
Little Sprouts	Arlington High School	Calvary Church, United Methodist
Arlington Children's Center, Inc.	Ottoson Middle School	Church of Our Saviour
Arlington Creative Start	Germaine Lawrence School	First Baptist Church
Arlington Heights Nursery School	Bishop Elementary School	First Parish Unitarian Universalist Church
Arlington Infant-Toddler Center	Covenant School	Highrock Church
Brackett After School Program	Peirce Elementary	Park Ave Congregational Church
Bright Start After School @ Bishop	Stratton Elementary School	Pleasant St Congregational Church
Fidelity House Preschool	Upper Mystic Lake Dam	Saint Agnes Parish
Fidelity House School Age Child Care	Arlington Reservoir Dam	St Athanasius Greek Orth. Church
Great Expectations Preschool	Mrs. T's Company Inc.	Saint Camillus
Kids Care Club	Community safety building	St. John's Episcopal Church
Kids Care Club at Thompson School	Grove St Bridge	St. Paul Lutheran Church
Gibbs School	Brattle St Bridge	Trinity Baptist Church
Peirce Playcare and Extended Day	Pond Lane Bridge	Bright View
Rogers-Pierce Children's Center	Dow Ave Bridge	Spring Board Day Care
Sunshine Nursery School	Park Ave Bridge	Casa Esme
The Afterschool Connection, Inc.	Pleasant St Bridge	Sunrise
Fire Police Support Service (garage)	Lake St Bridge	Natural Gas Distributor
Headquarters Fire Station	DPW office	Police Substation
Park Circle Fire Station	Municipal admin (in HS)	Fox Library
Highland Fire Station	Library	Dept of Children and Families
Arlington Fire Administration	Minuteman man under rte 2	Tracks Under Field
Arlington Town Hall	Alewife brook bridge	Reed Street Pump Station
Fire/Police Dispatch	DPW garage	Old Mystic Pump Station
Arlington Police Department	Winslow Towers	Intervale Pump Station
Hardy Elementary	Drake Village	Pond Land Pump Station
Leslie Ellis School	Qusack Building	Gould Road Pump Station
Thompson Elementary	Park Ave nursing & Rehab Center	Magnolia Field Pump Station
Brackett	Spring St Pump Station	1 Arizona Terrace
Ecole Bilingue School	Brattle Court Pump Station	Gould Road Pump Station
Arlington Catholic HS	Park Circle Fire Station (Towers)	Standish Pump Station
St Agnes Elementary	Park Circle Tower (1,000,000 gal)	Dow Pump Station
Cyrus E Dallin	Park Circle Tower	Mystic Lake Pump Station
		Arlington Senior Center

Flood Hazard Areas—FEMA & Local



Locally-Identified Hazard Areas

10 potentially hazard prone areas for flooding and brushfires were identified by the Local Team:

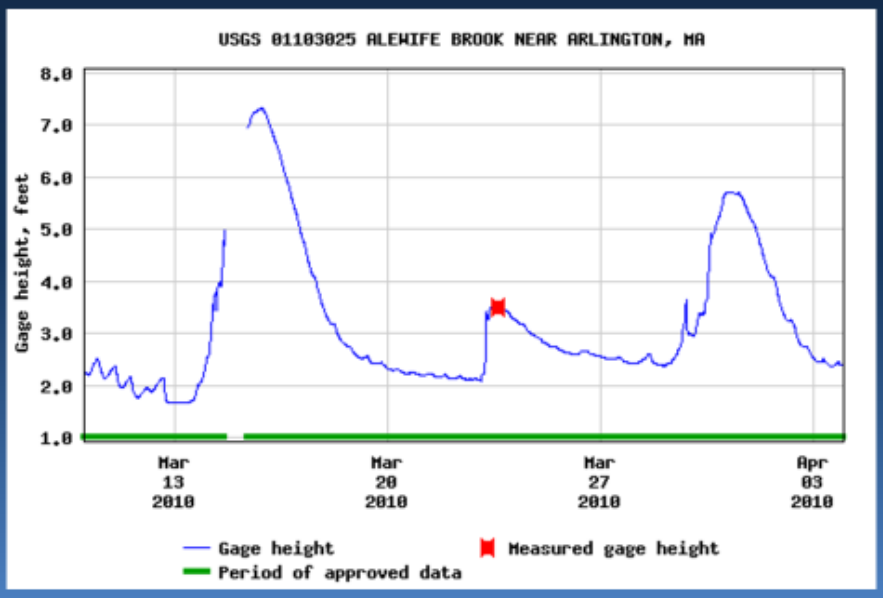
1	Minuteman Bikeway	Flooding
2	Forest Street	Flooding
3	Brattle Street	Flooding
4	Colonial Village	Flooding
5	Grove Street	Flooding
6	Garden Street	Flooding
7	East Arlington	Flooding
8	Sunnyside Avenue	Flooding
9	Thorndike	Brush Fire
10	Summer St	Brush Fire







USGS Gauge-Alewife Brook 2010



Other Natural Hazards

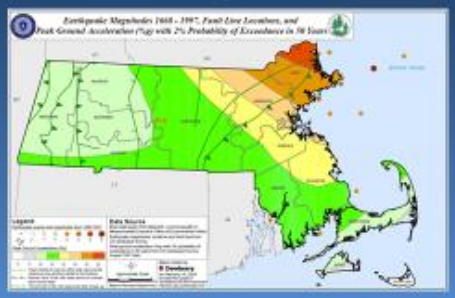
Extreme Heat



Drought



Earthquakes



Extreme Precipitation



Vulnerability Analysis: Estimated Damages

FEMA'S HAZUS-MH Program

HURRICANE Estimated Damages

100-year Hurricane property damage:	$ 35,730,000
500-year Hurricane property damage:	$ 151,940,000

EARTHQUAKE Estimated Damages

Magnitude 5 total property damage:	$ 857,620,000
Magnitude 7 total property damage:	$ 6,319,160,000

FLOODING: Estimated Damages:

100-year flood property damage:	$ 102,380,000
500-year flood property damage:	$ 167,800,000

Mitigation Strategies

The Mitigation Strategies from the previous plan were updated by the Local Team considering the following:



- What are the Town's existing Mitigation measures?
- Where are the gaps? What additional actions will further reduce vulnerability?
- What are the mitigation priorities, costs, timelines?
- Incorporated findings and recommendations from the MVP Community Resilience Building Workshop.

Mitigation Strategy Summary

Flooding and Stormwater

Minuteman Bikeway	Reconstruct or improve to withstand flooding (Mill Brook localized drainage, low lying area).
Mill Brook	Address flooding at Colonial Village.
Alewife Brook	Address flooding at Sunnyside Avenue.
Sanitary Sewer Overflows	Implement program to eliminate Sanitary Sewer Overflows.
Land Protection	Acquire priority open space parcels for many uses including maintaining flood storage and water infiltration capacity and for conservation.
FIRM mapping and bylaws	Update the town's zoning floodplain overlay map consistent with the FEMA Flood Information Rate Maps (FIRM).
Forest & Brattle Streets	Install pumps to remove flood water in low areas of the road.
Grove Street	Renovate DPW building and IT Data Center and create flood water storage.
Town-wide	Study feasibility of creating stormwater utility.
Town-wide	Develop a stronger wetlands, erosion control, and stormwater education outreach program for town residents and builders.
Town-wide	Develop a public/private partnership to facilitate drainage improvements, including "green" and "grey" infrastructure solutions and adjacent public lands/parks.

Mitigation Strategy Summary

WIND HAZARDS	
Town-wide: High Winds	Conduct a street tree inventory and Increase available funds for tree maintenance; coordinate with utilities.
GEOLOGIC HAZARDS	
Town-wide: Earthquakes	Investigate options to make all public buildings earthquake resistant.
WINTER HAZARDS	
Town-wide Snow disposal	Identify a new permanent snow disposal location.
Town-wide Public Buildings	Identify public buildings that may be vulnerable to snow loads and conduct a structural assessment if needed.
WILDFIRE HAZARDS	
Town-wide	Provide public information about brushfire hazards and preventative measures.
DROUGHT HAZARDS	
Town-wide	Adopt guidelines for new development and town properties to promote drought-tolerant landscaping and site design.

Final Steps: Plan Review and Approval

- The draft plan is available on the Town's website https://www.arlingtonma.gov/home/showdocument?id=49986
- Please send comments by February 10 to Emily Sullivan, esullivan@town.arlington.ma.us



- The plan will be submitted to MEMA and FEMA, and revised if required
- After FEMA review the Select Board will adopt the plan, and FEMA will issue a letter of plan approval
- The Town will be eligible for FEMA mitigation grants

Arlington Public Meeting #2
January 27, 2020

From: "Emily Sullivan" <ESullivan@town.arlington.ma.us>
To: "Berkowitz, William R" <William_Berkowitz@uml.edu>
Cc: kpruitt@town.arlington.ma.us, mpillsbury@mapc.org
Date: 02/05/2020 03:34 PM
Subject: Re: Comment on Hazard Mitigation Plan

Bill,

Thank you very much for sharing your manual with the Town! I am going to forward this to my colleagues in the Health Department and Fire Department, who are primarily responsible for disaster response and recovery. I would also like to share this with Sustainable Arlington, an environmentally-focus town group that plans the annual EcoFest event. This year's EcoFest is scheduled for Saturday, March 21st at the Arlington Town Hall. This year's theme is community resilience, which is closely related to the content of your manual.

Thank you again,
Emily

Emily Sullivan
Environmental Planner & Conservation Agent
Town of Arlington
esullivan@town.arlington.ma.us
(781) 316-3012

From: "Berkowitz, William R" <William_Berkowitz@uml.edu>
To: "esullivan@town.arlington.ma.us" <esullivan@town.arlington.ma.us>
Cc: "kpruitt@town.arlington.ma.us" <kpruitt@town.arlington.ma.us>, "mpillsbury@mapc.org" <mpillsbury@mapc.org>
Date: Thu, 30 Jan 2020 21:52:39 +0000
Subject: Comment on Hazard Mitigation Plan

Dear Ms. Sullivan,

In connection with your recent work on the Hazard Mitigation Plan, I wanted to pass along a link to a manual my colleagues and I wrote a while ago called *How to Help Your Community Recover from Disaster: A Manual for Planning and Action.*

You can find it at
https://www.scra27.org/files/2114/0605/7122/SCRA_Disaster_Recovery_Manual.pdf

This manual focuses on a perhaps different but related aspect of disaster recovery -- that is, the individual and group psychological factors that go into creating and implementing an effective recovery plan. (I am an Arlington-based psychologist specializing in applications to community affairs.)

In case this is useful to you as your work proceeds, that would be excellent. If questions, please don't hesitate to let me know.

With best wishes,

~~ Bill Berkowitz

Arlington Public Meeting #2
January 27, 2020

From: Select Board Member Joseph Curro <jcurro@town.arlington.ma.us>
To: Emily Sullivan <ESullivan@town.arlington.ma.us>
Cc: Adam Chapdelaine <AChapdelaine@town.arlington.ma.us>, Jenny Raitt <jraitt@town.arlington.ma.us>, Selectman Joseph Curro <jcurro@town.arlington.ma.us>
Date: 02/10/2020 06:20 PM
Subject: Re: Comments on Hazard Mitigation Plan

Thank you for the thoroughness of the replies, Emily.

Just remembered another... MBTA bus depot in the Heights!

Best,

Joe

On Mon, Feb 10, 2020 at 3:13 PM Emily Sullivan <ESullivan@town.arlington.ma.us> wrote:

> Joe,
>
> This is incredibly helpful, thank you very much for taking the time to go through the draft plan and provide comments. MAPC recently commented to me that they have never worked with a community that has offered so many comments on a draft hazard mitigation plan, which just goes to show how engaged residents are in Town!
>
> Please see my responses to your questions and comments below, in blue text:
>
> - Are Kids Care Club and Kids Care Club at the Thompson School different? Kids Care Club and the Thompson Kids Care Club are different. The #13 listed Kids Care Club is the Boys and Girls Club program. I will confirm the name is correct.
> - I notice some apparent redundancies (perhaps intentional), such as: These redundancies can be removed, or consolidated.
> - Headquarters Fire Station vs. Arlington Fire Administration
> - Arlington Police Department vs. Fire/Police Dispatch vs. Community Safety Building
> - Park Circle Tower listed twice
> - Germaine Lawrence School is no longer in existence. McLean Hospital purchased the campus and will soon be moving day and residential programs for youth in. Thank you for this update!
> - Qusack Building --> Cusack Terrace I will correct the spelling.
> - Chestnut Manor elder housing appears to be missing Nice catch, I will add this
> - Does it make sense to include Millbrook Square and some of the HCA properties? Menotomy Manor? This certainly makes sense and should be added.
> - Ecole Bilingue School no longer exists I will update this to the new school.
> - Pleasant Street Congregational Church is now Boston Church of Christ I will update this.
> - Missing church/convent: Order of St. Anne-Bethany I will add this.
> - Does it make sense to include any of our key medical facilities, such as the professional buildings on Mill Street and Water Street, Lahey, AFC Urgent Care, not to mention pharmacies, Armstrong, and possibly even veterinary facilities? I think this does make sense, especially AFC Urgent Care and Armstrong. I will ask MAPC what municipalities usually do for professional medical offices, though I think it's always good to include more facilities.
> - Supermarkets? Arlington EATS Market? Food Link? Arlington EATS and Food Link should be added, but I'm not sure about super markets. I'll ask MAPC about this too.
> - Arlington Senior Center --> Arlington Community Center I will update this, thank you!
> - AYCC and other Health and Human Services offices? I think these are great adds.
> - ACMi: Park Avenue, Studio B, and Town Hall and AHS broadcast facilities? I will ask MAPC about these broadcasting facilities, they are certainly an emergency communication asset.
> - St. Paul's has a communications tower, right? I think there are a number of these around town. Chief Kelley gave us a list of communications towers, I will double check his list and make sure we have them all in the plan.
> - MassDOT Highway District 4? If we add MassDOT, maybe we should also add the Mass Department of Children and Families. I will check in with MAPC about how municipalities usually include state agencies and offices.

Arlington Public Meeting #2
January 27, 2020

Thank you again for all your comments!

Best,
Emily

Emily Sullivan
Environmental Planner & Conservation Agent
Town of Arlington
esullivan@town.arlington.ma.us
(781) 316-3012

From: Select Board Member Joseph Curro <jcurro@town.arlington.ma.us>
To: esullivan@town.arlington.ma.us, Selectman Joseph Curro <jcurro@town.arlington.ma.us>, Adam Chapdelaine <AChapdelaine@town.arlington.ma.us>, Jenny Raitt <jraitt@town.arlington.ma.us>
Date: Fri, 7 Feb 2020 22:17:39 -0500
Subject: Comments on Hazard Mitigation Plan

Hi, Emily!

Thank you very much for the excellent presentation at our last Board meeting. At that time, I had indicated that I might have some follow-up feedback, specifically around the list of critical infrastructure starting on page 61. I recognize that it is virtually impossible to keep such a list up-to-date, but I wanted to provide some corrections, questions, and suggested additions:

- Are Kids Care Club and Kids Care Club at the Thompson School different?
- I notice some apparent redundancies (perhaps intentional), such as:
 - Headquarters Fire Station vs. Arlington Fire Administration
 - Arlington Police Department vs. Fire/Police Dispatch vs. Community Safety Building
 - Park Circle Tower listed twice
- Germaine Lawrence School is no longer in existence. McLean Hospital purchased the campus and will soon be moving day and residential programs for youth in.
- Qusack Building --> Cusack Terrace
- Chestnut Manor elder housing appears to be missing
- Does it make sense to include Millbrook Square and some of the HCA properties? Menotomy Manor?
- Ecole Bilingue School no longer exists
- Pleasant Street Congregational Church is now Boston Church of Christ
- Missing church/convent: Order of St. Anne-Bethany
- Does it make sense to include any of our key medical facilities, such as the professional buildings on Mill Street and Water Street, Lahey, AFC Urgent Care, not to mention pharmacies, Armstrong, and possibly even veterinary facilities?
- Supermarkets? Arlington EATS Market? Food Link?
- Arlington Senior Center --> Arlington Community Center
- AYCC and other Health and Human Services offices?
- ACMi: Park Avenue, Studio B, and Town Hall and AHS broadcast facilities?
- St. Paul's has a communications tower, right? I think there are a number of these around town.
- MassDOT Highway District 4?

Sorry for the length of the list.

I hope this helps.

Best,

Joe

Arlington Public Meeting #2
January 27, 2020

From: "Emily Sullivan" <ESullivan@town.arlington.ma.us>
To: "Wynelle Evans" <evco7@rcn.com>
Cc: achapdelaine@town.arlington.ma.us, JCurro@town.arlington.ma.us, SDeCourcey@town.arlington.ma.us, DDunn@town.arlington.ma.us, JHurd@town.arlington.ma.us, DMahon@town.arlington.ma.us, "Jenny Raitt" <JRaitt@town.arlington.ma.us>, mkrepelka@town.arlington.ma.us, mpillsbury@mapc.org
Date: 01/28/2020 03:48 PM
Subject: Re: comments on Draft Hazard Mitigation Plan

Wynelle,

There are two more Town emergency preparedness and resilience items that I forgot to mention that relate well to this topic. This year Arlington's annual Town Survey includes questions related to resilience. If you have not taken the Town Survey yet, I recommend doing so. You can take the Town Survey by clicking this link. A Town committee, Sustainable Arlington, will also be hosting an event this spring focusing on resilience, response, and recovery to disasters and emergencies. The event is called EcoFest, and is scheduled for Saturday, March 21 in the Town Hall Auditorium. This event will have information about Town initiatives to strengthen resilience, as well as other resources residents can leverage to foster stronger individual resilience. The event's schedule has not yet been published, but you can find more information on Sustainable Arlington's webpage.

I look forward to discussing these topics with you in more detail when your schedule frees up.

Best,
Emily

Emily Sullivan
Environmental Planner & Conservation Agent
Town of Arlington
esullivan@town.arlington.ma.us
(781) 316-3012

> From: Wynelle Evans <evco7@rcn.com>
> To: Emily Sullivan <ESullivan@town.arlington.ma.us>
> Cc: achapdelaine@town.arlington.ma.us, JCurro@town.arlington.ma.us, SDeCourcey@town.arlington.ma.us, DDunn@town.arlington.ma.us, JHurd@town.arlington.ma.us, DMahon@town.arlington.ma.us, Jenny Raitt <JRaitt@town.arlington.ma.us>, mkrepelka@town.arlington.ma.us, mpillsbury@mapc.org
> Date: Tue, 28 Jan 2020 15:23:17 -0500
> Subject: Re: comments on Draft Hazard Mitigation Plan
>
> Hello, Emily,
>
> Thank you so much for your reply, the links, and the offer to discuss this further.
>
> Your information has helped me focus on what I think Arlington needs, which I hope the Town will consider providing: public sessions to familiarize residents with what the Town is doing, and to make recommendations on what individuals should do to prepare. I'd bet many people are as ignorant about the resources on the Town website as I was, so public meetings to publicize these resources would be great. We also need meetings that provide basic information about how to prepare your household, and perhaps go further by providing training in disaster response: staying safe, working with your neighbors, how to deal with an extended power and/or water outage, etc.
>
> I'm in the midst of several projects right now, but I would like to take you up on your offer of a more-thorough discussion. I will be in touch when my schedule opens up and see if we can schedule a meeting.
>
> In the meantime, thank you again for getting back to me.
>
> Best wishes,
> Wynelle
> ---
> Wynelle Evans

Arlington Public Meeting #2
January 27, 2020

On Jan 27, 2020, at 4:25 PM, Emily Sullivan <ESullivan@town.arlington.ma.us> wrote:

Dear Wynelle,

Thank you very much for your email and interest in the Hazard Mitigation Plan update.

Your email touches on a very important emergency management issue. While Arlington is updating its Hazard Mitigation Plan, the Town also has a Comprehensive Emergency Management Plan, developed and managed by the Arlington Fire Department. The purpose of the Hazard Mitigation Plan is to assess and prioritize what the Town can do pre-disaster, to mitigate the potential impacts of a natural disaster. The purpose of the Comprehensive Emergency Management Plan is to assess and improve the during-disaster emergency response and post-disaster recovery tactics of the Town. Your suggestion for better preparation by individuals is certainly a good one, and the Town could pursue that as part of its Comprehensive Emergency Management Plan and emergency response program. The program you referenced is actually part of FEMA's Community Emergency Response Team (CERT) program, which involves training a local volunteer team. Training materials and other resources are available on FEMA's CERT web page at https://www.ready.gov/cert.

The Department of Planning and Community Development developed this guide for residents to learn more about preparing for and responding to extreme heat, extreme cold, and flooding, so the Town is taking steps to engage residents in preparing for during- and post-disaster situations.

I would be happy to discuss these ideas with you in more depth at your availability.

Best,
Emily

Emily Sullivan
Environmental Planner & Conservation Agent
Town of Arlington
esullivan@town.arlington.ma.us
(781) 316-3012

> From: Wynelle Evans <evco7@rcn.com>
> To: achapdelaine@town.arlington.ma.us, JCurro@town.arlington.ma.us, SDeCourcey@town.arlington.ma.us, DDunn@town.arlington.ma.us, JHurd@town.arlington.ma.us, DMahon@town.arlington.ma.us
> Cc: Jenny Raitt <JRaitt@town.arlington.ma.us>, mkrepelka@town.arlington.ma.us, mpillsbury@mapc.org, esullivan@town.arlington.ma.us
> Date: Sat, 25 Jan 2020 15:30:17 -0500
> Subject: comments on Draft Hazard Mitigation Plan
>
> Dear all,
>
> I had hoped to attend the Monday, January 27, Select Board meeting to speak on this issue, but have had a change of plans, so am sending this note instead. I understand that it's too late to be included in the record, but I hope you will all consider the message of this email as it relates to the scheduled discussion and approval of the Draft Hazard Mitigation Plan, which is that individual preparedness is critical to overall disaster preparedness.
>
> The Draft Hazard Mitigation Plan and the January 27, 2020 presentation materials clearly lay out the steps the Town is taking to prepare for a variety of events. But there is no mention in either of what

individuals need to do to stay safe during an event and the aftermath, and how the Town can educate its residents.

As disaster after disaster reveals, it can take days, or much longer, for help to arrive. In the meantime, citizens are on their own. I have relatives in North Carolina who lost their homes in Hurricanes Matthew and Florence, many of whom are still trying to get back to normal. Hurricane Matthew did such extensive damage that there are some NC communities that cannot afford to rebuild, ever. I also have relatives in San Juan, P.R., who are dealing with the aftermath of recent hurricanes, and the very recent earthquakes. Many of their neighbors have been without electricity and water for extended periods of time. And of course Katrina was a stunning revelation of how even the residents of a major urban area can be left to fend for themselves, long beyond any anticipated period.

The big lesson is that each of us must take responsibility for our own safety.

While doing some research into what kind of basic disaster kit I could put together for my household, I came across the site of the Emergency Volunteer Corps of Nehalem Bay (Washington state), which is a terrific, comprehensive guide for individuals and community members: https://www.evcnb.org

"The Emergency Volunteer Corps of Nehalem Bay is a deeply committed core of like-minded volunteers that have forged a remarkable private-public coalition in three small coastal towns which is one of the most visionary, innovative, and organized local emergency preparedness groups in the United States."

— James Roddey, former Earth Sciences Information Officer, Oregon Dept. of Geology and Mineral Industries

Click on Preparedness in the menu bar for an eye-opening tour of not only what you can do to prepare, but what you might have to do to survive.

While, obviously, we all hope that there is never a need for any of these efforts, I do hope the Town will consider how to create a training program for residents, and that MAPC will consider how contiguous cities and towns might pool resources and expertise in an event that affects multiple communities.

Many thanks for your attention to this matter—
Wynelle Evans
—
Wynelle Evans

Arlington Public Meeting #2
January 27, 2020

From: Patricia Worden <pbworden@gmail.com>
To: Emily Sullivan <esullivan@town.arlington.ma.us>
Cc: jgonyeau@preservationmass.org
Date: 02/05/2020 12:12 AM
Subject: Testimony for Draft Hazard Mitigation Plan

Testimony for Improvement of Arlington's Draft Hazard Mitigation Report

From Patricia Barron Worden, Ph.D.

Dear Ms. Sullivan,

Thank you for your work presenting MAPC's Draft Arlington Hazard Mitigation Plan. There are a umber of improvements that should be made in the final version regarding hazard mitigation and sustainability. Hazards at the very important Arlington High School have been completely ignored. AHS campus is also the site for the new high school and is at a choke point of the Mill Brook Valley. The site is across Grove Street from the Wellington Park Mill Brook rehabilitation site financed partly with the help of FEMA. It could be damaged by flooding caused by the inadequate AHS culvert. Please include this entire communication for submission for the process for production of the final report from the draft. Hopefully my concerns will be addressed.

Please acknowledge receipt of this testimony.

It should be noted that some concerned residents are not confident that the current Arlington Conservation Commission will be able to provide protection from hazardous initiatives at the high school. (For example, some residents in the Spy Pond area of Arlington are not optimistic about the Commission's ability to provide protection of wetland buffer areas and their sustainability near the pond after recent incidents requiring police protection at the Commission.)

Police protection was provided after reversal of refusal of permission for a developer to build in the Pond's wetland buffer. Bizarre incidents had occurred apparently related to the landowner's interests. The subsequent surprising granting of the permit by the Commission in this sensitive area despite previous repeated rejections caused residents more alarm. If I remember correctly only two Commissioners voted against granting the permit thus admirably declining to change their vote after the turmoil.

It was really difficult not to know whether or for how long we would be allowed to speak at this January 27th Hazard Mitigation Draft Plan hearing. I felt it would be important to include the irresponsible decision that geothermal and renewables are no longer a priority in the nw Arlington High School project but in trying to get my remarks down to the usual

Arlington Public Meeting #2
January 27, 2020

3 minutes I had to jettison that. Also, I had to eliminate from my remarks made at this poorly publicized Select Board hearing that the Town's hazard mitigation plans will suffer from two further elements in the new high school plan. (Incredibly the plan is already approved by the Massachusetts School Building Authority – perhaps Massachusetts Environmental Protection authorities could question that approval.) These two elements are:

1. The impending elimination of 45 trees from the Arlington High School site and

2. Further paving over of the Mill Brook culvert for a new road - planned by the Building Committee and the Town Manager - on top of it behind the high school. The area includes two FEMA designated Floodways.

The decision by the Town Manager and Building Committee to drop Net Zero plans together with other environmentally important specifications AFTER the electorate had approved $300,000,000 for the new High School was alarming.

Most disappointing and environmentally irresponsible has been the Manager and others' decision to do a total teardown/all new construction for the new high school despite the fact that partial renovation/part new was equally popular, would have cost less than half, and been much less invasive for the site. The historic AHS buildings are excellent early last century construction and listed by Preservation Massachusetts as among the ten most endangered Massachusetts buildings of 2018. They are to be torn down according to the wishes of the Manager and Building Committee. They should instead be incorporated as a significant and large contribution to the - design. This is a huge waste of materials and invasive and harmful for the ecology and sustainability of the site requiring removal of 45 trees mentioned above. – This matter is ignored by the Draft Hazard Mitigation Report.

Unmentioned in the report is the fact that there will be more impermeable surface for the new AHS since the Manager disappointingly wants Town vehicle parking and Town offices at the new AHS and he wants the above-mentioned new road to be put on top of the Mill Brook culvert. The undersized culvert at AHS is a choke point for the Mill Brook. The fact that its enlargement or daylighting at the AHS new school site was not included in the plans places the upstream sections of the Mill Brook Valley at huge risk. My letters on those subjects were published in the Arlington Advocate during the last couple of years.)

A further observation of the process for public participation in the Hazard Plan MAPC report is that the Draft was not made available until Thursday Jan 23 and so it was necessary for those hoping to comment to spend the whole weekend reading and analyzing it since it is around 150 pages. The two speakers after me (please see the video recording in the url below for these) made excellent points which I would have made if I hadn't been afraid of being cut off mid-sentence.

My remarks start at 1.24.40

Arlington Public Meeting #2
January 27, 2020

https://www.youtube.com/watch?v=Ry30WF9hBGo&t=5080

Here are my remarks also in the video above-

Please include them in my testimony on the Hazard Mitigation Plan

January 27 at Meeting of the Select Board

Patricia Worden. Thank you for the opportunity to speak.

This Hazard Plan tonight should help prevent harm to people and properties from natural and man-made hazards. Arlington 's flood problems will get worse as climate change progresses. Rainfall associated with the worst storms in our region is now 71% greater than it was 50 years ago. And so –thank you to MAPC and other creators of this Hazard mitigation plan for their very helpful maps. Unfortunately much of the rest of the report is repetitive boilerplate in which the creators have done a good job checking boxes but as regards providing improvements for protection of people and properties not so much – many important factors are ignored and there are errors.

In Table 31 AHS is cited as having zero infrastructure Flood risk and Menotomy Preschool is cited for significant Flood Risk. But Menotomy Preschool is INSIDE AHS so that makes no sense. Another mistake- The report said that Arlington recreated the Town Common. Well, no – Arlington has never had a common - the only land that might have resembled a common - Russell Green was entirely paved over for a parking lot long ago. The report says that public participation is very important for this plan - But prior to tonight there has only been one such public session– just one in the last seven years.

A much greater concern, neglected in the Hazard Plan, is failure of Town leaders to prioritize hazard mitigation over attempted developer friendly zoning changes for dense residential development removing usable open space which in many cases would worsen hazards. Zoning should be used to reduce hazards but recently Town leaders have been doing just the opposite. Fortunately they have so far been stopped by Town Meeting.

The report indicates the importance of trees in avoiding heat island effects that are dangerous to seniors. But the PD plans to remove shade trees from Arlington Center to facilitate a lucrative landscape contract. In fact there is a tree hearing tomorrow where a plea will be made to save the trees.

Arlington Public Meeting #2
January 27, 2020

Flooding problems are most severe in the Mill Brook valley. The firm Weston and Sampson determined that Arlington should develop a Capital Improvement Plan for Mill Brook essentially so that it can run all the way to Mystic Lake without being blocked by the undersized culvert at AHS. That causes the frequent expensive dangerous backup flooding problems upstream. Solving the Mill Brook's flooding problems would need the undersized culvert for the Mill Brook that runs beside – not under – the football field – to be replaced or opened up –daylighted. But the report completely ignores this. So the problem will go on and get worse. There is no plan - nothing - to improve this even though it is at the site of Arlington's biggest-ever construction plan - the new AHS. There is little or no mention of the FEMA-designated floodways at AHS fields and the large culvert under the high school that may need to be redirected or expanded – it carries storm water from 400 million square feet of watershed under the high school to Mill Brook. There are no permits or order of conditions for this construction nor have they even been applied for. The report ignores this.

Thank you

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APPENDIX D: DOCUMENTATION OF PLAN ADOPTION

[TO BE COMPLETED AFTER FEMA REVIEW AND NOTICE OF APPROVABLE PENDING ADOPTON]

[Print on Town Letterhead]

CERTIFICATE OF ADOPTION
SELECT BOARD
TOWN OF ARLINGTON, MASSACHUSETTS

A RESOLUTION ADOPTING THE
TOWN OF ARLINGTON HAZARD MITIGATION PLAN 2020 UPDATE

WHEREAS, the Town of Arlington established a Committee to prepare the *Town of Arlington Hazard Mitigation Plan 2020 Update*; and

WHEREAS, the *Town of Arlington Hazard Mitigation Plan 2020 Update* contains several potential future projects to mitigate potential impacts from natural hazards in the Town of Arlington, and

WHEREAS, duly-noticed public meetings were held by the Town on June 13, 2019 and ON January 27, 2020, and

WHEREAS, the Town of Arlington authorizes responsible departments and/or agencies to execute their responsibilities demonstrated in the plan,

NOW, THEREFORE BE IT RESOLVED that the Town of ARLINGTON SELECT BOARD adopts the *Town of Arlington Hazard Mitigation Plan 2020 Update*, in accordance with M.G.L. 40 §4 or the charter and bylaws of the Town of Arlington.

ADOPTED AND SIGNED this Date. _____

Name(s)

APPENDIX E: DOCUMENTATION OF PLAN APPROVAL

[TO BE ADDED AFTER FEMA APPROVES THE FINAL PLAN]

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APPENDIX F: SUMMARY MVP RECOMMENDATIONS

In 2018, Arlington received a Municipal Vulnerability Preparedness (MVP) Planning Grant from the Executive Office of Energy and Environmental Affairs. The grant allowed the Town to examine its strengths and vulnerabilities, as well as identify priority resilience-building actions. The grant process was coordinated by the Municipal Vulnerability Preparedness core group composed of Town Officials, business leaders, and community members, and was led by Department of Planning and Community Development staff with the help of the consultant Kleinfelder. The top priority identified through the workshop is addressing flooding in the Mill Brook Corridor, which has recently and historically caused significant damage to homes, businesses, and other properties in the brook's vicinity. Other vulnerabilities identified through this process include potential disruptions due to heavy rainfall, ice and snow storms, extreme heat, and sea level rise leading to storm surge from the Mystic River and Alewife Brook.

Building off the success of the MVP Planning Grant, the Town was awarded an MVP Action Grant to develop and implement ecologically sensitive flood management measures in the Mill Brook Corridor. This project built off of the Mill Brook /Wellington Park Project, which is a cooperative effort with the Mystic River Watershed Association (MyRWA), funded by the Community Preservation Act (CPA) to improve public access and recreational opportunities in the Mill Brook Corridor at Wellington Park, and in other areas of the park.

To learn more about the MVP Planning Process and the vulnerabilities identified, please find an excerpt of Arlington's MVP report below. The Local Hazard Mitigation Planning Team included members of the MVP planning effort and ensured consistency between the MVP report and this hazard mitigation plan update.

Implement multi-benefit solutions along Mill Brook

All four groups recommended actions to improve conditions along the Mill Brook corridor, from Arlington Reservoir to Mystic Lakes. Flooding in this area affects important public services as well as the economic center of the community.

The Town has recently completed a corridor-wide hydrological study to better understand flooding locations, causes, and solutions. Once effective solutions can be identified to mitigate flooding along Mill Brook, the Town should evaluate and prioritize them for implementation over the short and long-term. The prioritization and implementation processes should involve and educate private landowners along Mill Brook. Priority should be given to effective flood mitigation projects that achieve multiple community objectives for Mill Brook. Objectives may include improving water quality, structural stability, daylighting, recreational use, pest and vector control, economic development, and urban heat island mitigation.

Address flooding and heat hazards in East Arlington

East Arlington is more exposed to flooding and heat hazards than any other neighborhood in Arlington. Its exposure to flooding is related to its topography and proximity to Alewife Brook and the Mystic River. Its high heat exposure is due to the density of housing and limited tree cover and pervious surfaces. DCR is a critical stakeholder for the Town to work with on solutions to flooding in East Arlington. DCR is responsible for critical green and gray flood mitigation infrastructure along Alewife Brook and the Mystic River. The Town should open an ongoing dialogue to encourage DCR to take all necessary actions to increase the flood protection provided by the Amelia Earhart Dam, Mystic River Reservation, and Alewife Reservation. DCR needs to take actions to address riverine, storm surge, and sea level rise flooding. Such actions could include elevating the Amelia Earhart Dam and adding pumping capacity, creating multi-use levees and adding storage capacity along the reservations, and participating in regional dam/reservoir management schemes. Realistically, the actions themselves could take decades to plan, design, fund, and implement. In the near-term, the Town should create tailored plans for evacuation, sheltering, communications, and providing ongoing public services for a scenario in which East Arlington is exposed to a 500-year flood.

To mitigate the urban heat island in East Arlington, the Town should prioritize the neighborhood as part of its ongoing tree planting and maintenance activities, using native resilient species. This program should use the heat map presented in the workshop and recently collected street tree inventory data to identify target locations where tree planting is most needed. In planning these activities, the Town should review planned roadway, sidewalk, and utility upgrades to ensure compatibility and identify opportunities to incorporate tree planting in ongoing work. This type of exercise, linking planning and operations, could be a pilot for a more comprehensive Green Streets Master Plan, described below.

Address heat hazards along Massachusetts Avenue corridor

Heat maps used in the workshop clearly show that Massachusetts Avenue is surrounded by an urban heat island. Many Arlington residents and workers walk through this corridor to access the bus transit system, local businesses, and civic facilities. As extreme heat events increase, these uses will become more dangerous, especially for vulnerable populations.

Actions should be taken in the near-term by the Town and private owners to mitigate dangerous heat levels along the corridor. As part of ongoing activities, the Town should plant more native and diverse tree species and increase pervious surfaces within the public right of way, especially around facilities used by vulnerable populations. The Town should study the feasibility of implementing a "road diet" along the corridor that could increase the area available for tree planting and green stormwater infrastructure, while also improving accessibility and bus transit operations. Mitigating the heat island will also require that private owners, especially those with large flat roofs and large impervious parking lots, take actions on their own properties. The Town should support such action with education and consider incorporating new requirements or incentives in bylaws, regulations, and permitting processes.

Develop and implement green infrastructure projects, policies, and plans

Green infrastructure has the capacity to mitigate flooding and extreme heat, in addition to providing other social, economic, and environmental benefits. The Town should incorporate green infrastructure in its ongoing capital and maintenance projects, wherever feasible. The Mill Brook corridor hydrological study, mentioned above, should be used in the near term to evaluate the costs and benefits of different green infrastructure strategies to achieve flooding, heat, and water quality goals. Through the planning and implementation process, potential public investments in green infrastructure as well as policies affecting private property should be investigated. Once effective solutions are identified, the Town should develop a Green Streets Master Plan. Such a plan should target, optimize, and coordinate capital and maintenance investments in trees, utilities, green infrastructure, and drainage systems. The Town should concurrently review its existing plans, bylaws, regulations, and permitting processes, as well as models used by other municipalities, to identify potential mechanisms for effecting green infrastructure adoption on private property.

Incorporate resilience in the DPW and High School redesign

The Town is redesigning two critical municipal facilities that are located in FEMA floodplain along Mill Brook. The new facilities should be designed to be resilient to future heat and flooding hazards. A climate change vulnerability assessment of both sites can inform conceptual designs for the future facilities. The assessment should produce estimates of future flooding and extreme heat levels to inform design criteria for the new facilities. The assessment should also develop resiliency recommendations and associated cost estimates for each facility. The recommendations should address the key functional requirements of each facility. For example, at the DPW facility design and operational recommendations should be provided to maintain access and egress and protect supplies and equipment during a flood. For the school, design options should be recommended for resilient cooling systems and sheltering capacity. In addition, these sites are adjacent to each other and both have large available land areas. They should be evaluated for renewable energy generation with advanced battery storage, which could also serve as emergency power. The assessment findings and recommendations can be used to inform requirements and as a base review for each stage of design.

Increase the functionality of Arlington's bike paths

The Town is launching a dockless bikeshare system. Docking locations should

consider accessibility issues, and opportunities to improve connections. Policy changes should allow for pedal-assist bikes

HIGH PRIORITY

The following actions are considered high priority:

• Incorporate climate projections for future rainfall storm events into drainage design criteria and the Town's stormwater bylaw.
• Implement ongoing improvements to public schools to assure continuity of operation in extreme weather events. Schools should have efficient cooling and heating systems, flood-protected access, and emergency generators, at a minimum. Prepare a plan to implement ADA improvements, decrease car dependency, and improve bus stop conditions and route inefficiencies.
• Evaluate the cost-effectiveness of acquiring Poet's Corner for snow, flood, and/or salt storage.
• Evaluate micro-grid opportunities with renewable energy and storage in locations that connect multiple Town properties.
• Advocate for Eversource to proactively improve electric transmission capacity.
• Evaluate establishing a stormwater utility to raise funds for necessary flood and water quality improvements.
• Address the vulnerability of Armstrong Ambulance and other businesses along the Mill Brook to flooding.
• Increase the capacity of the culvert from Spy Pond to Alewife Brook under Route 2.
• Coordinate with Cambridge, Belmont, Somerville, Winchester, and Medford on climate resiliency plans.
• Review and update the Environmental Design Review special permit criteria to encourage the consideration of climate change hazards and resiliency strategies.

MODERATE PRIORITY

The following actions are considered medium priority:

• Address the resiliency needs of elderly populations, including cooling centers, flood evacuation plans, improving bus stop shading, and continuity of care plans for services such as food delivery during extreme weather events.
• Conduct an energy audit of Town Hall, Robbins Library, and the Senior Center and make improvements such as white roofs and solar panels. Use dehumidification to enhance paper file longevity or digitize files.
• Initiate a Regional Dam Management Plan, which includes storage improvements and procedures for lowering Arlington Reservoir, Spy Pond, and Mystic Lakes ahead of storms.
• Improve sweeping and catch basin cleanout, and implement alternative and more environmentally friendly snow and ice treatment.
• Develop emergency preparedness information and outreach/network with schools, daycares, and churches, as well as retail, grocery stores, and in each business district.
• Implement a green solution at the Russell Common parking lot and other large lots along the Massachusetts Avenue corridor which will reduce radiant heat.
• Invest in and facilitate green infrastructure projects on public and private property, such as green roofs, permeable pavement, and open space, to offset dark and impermeable surfaces. Extend and replicate successful rain garden pilot projects. Work with owners of large parking lots, such as car dealerships and churches.
• Explore participating in Heat Smart Massachusetts program to make improvements to Arlington Housing Authority properties.
• Take actions to manage vectors and invasive species.

LOWEST PRIORITY

• Educate the public about issues identified by workshop participants. For example, a "Resilient Arlington" campaign can support

individual preparedness by distributing best practices information and providing rain barrels. Another campaign should educate residents on stormwater pollution, how drainage systems flow to local water bodies, and actions to mitigate impacts of residential pollution sources.
• Continue water quality study at the McClellen Park detention basin, to ensure that the former landfill remains safe from leaching.
• Develop a Community Garden Plan that identifies opportunities for expanded or additional gardens and offer education to neighborhoods on how to maintain and develop them.
• Provide education to residents on preventing rodent infestation and expand the Town facilitated composting program with sealed containers to separate compost from general house trash.
• Modify Town evacuation routes to account for current and future flooding and communicate with residents about the changes.
• Prepare Ed Burns Arena to be an emergency shelter with a permanent emergency electrical generator

Town of Arlington, Massachusetts

Discussion: Massachusetts FY 21 Budget

Summary:
Adam W. Chapdelaine, Town Manager

ATTACHMENTS:

	Type	File Name	Description
🗋	Reference Material	SWM_Economic_and_Fiscal_Outlook_Presentation_5.5.20.pdf	Presentation

Massachusetts Economic and Fiscal Outlook
FY 2020-2021

Senate Committee on Ways and Means

Sen. Michael J. Rodrigues, Chair

Agenda

- Economic Variables
 - Unemployment
 - Gross Domestic Product
 - Shape of the Recovery
 - Role of the Federal Government
- FY 2020 Tax Revenue Forecasts
- FY 2021 Tax Revenue Forecasts
- Historical Context
- Strengths and Weaknesses of Massachusetts

Virtual Economic Roundtable

- On Tuesday, April 14th, the Chairs of the Joint Committee on Ways and Means and the Secretary of Administration and Finance hosted a number of economists, academics and think tanks to provide their perspectives on the economic and fiscal impacts of the COVID-19 pandemic on Massachusetts.

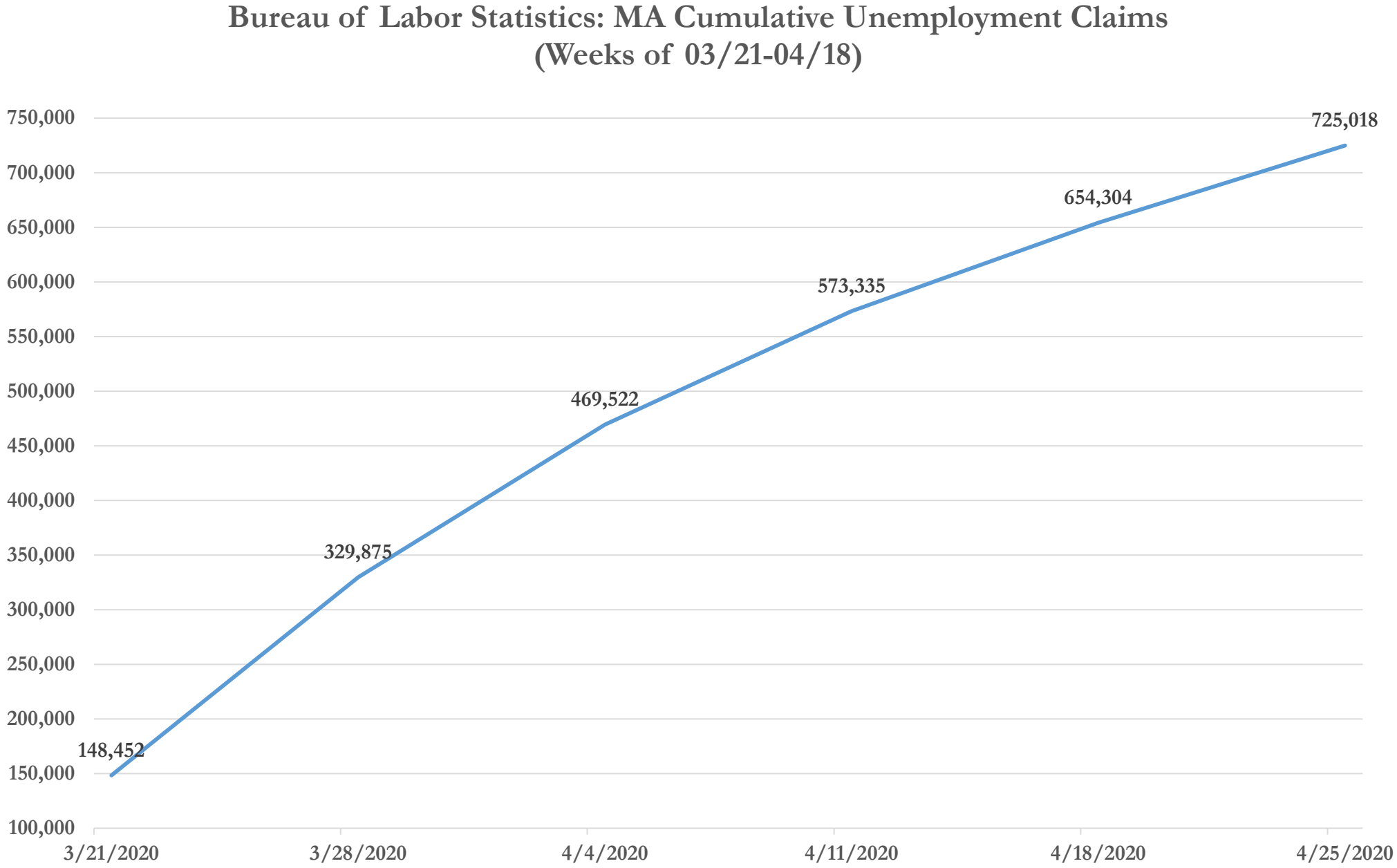
- Our guests included:
 - Treasurer Deborah Goldberg
 - Eileen McAnneny, Massachusetts Taxpayers Foundation
 - David Tuerck and William Burke, Beacon Hill Institute
 - Marie-Frances Rivera, Massachusetts Budget and Policy Center
 - Evan Horowitz, Center for State Policy Analysis at Tufts University
 - Michael Goodman, University of Massachusetts Dartmouth
 - Alan Clayton-Matthews, Northeastern University
 - Beth Ann Bovino, S&P Global
 - Nick White, Moody's Analytics

Economic Variables

- Before diving into our experts' tax revenue forecasts, it is important to look at some of the economic variables we are monitoring throughout the pandemic.
- The items listed below touch on some of the issue areas discussed during the roundtable:
 - Unemployment
 - Gross Domestic Product
 - Shape of the Recovery
 - Role of the Federal Government

Unemployment

- Between March 15th and April 25th, U.S. unemployment claims skyrocketed to over **30M**.
- In Massachusetts, the same six-week period saw more than **720K** initial unemployment claims filed.
- This data does not include previously ineligible workers, such as contractors and self-employed individuals – which is estimated to add another **172K** workers to the unemployment insurance system.
- Several of our roundtable experts projected highs in unemployment of between **15-18%** - however, our estimated claims from last week's data suggest somewhere between **24-26%** of the workforce is unemployed or furloughed during the peak of the public health crisis.


Bureau of Labor Statistics: MA Cumulative Unemployment Claims
(Weeks of 03/21-04/18)
750,000
700,000
650,000
600,000
550,000
500,000
450,000
400,000
350,000
300,000
250,000
200,000
150,000
100,000
148,452
329,875
469,522
573,335
654,304
725,018
3/21/2020
3/28/2020
4/4/2020
4/11/2020
4/18/2020
4/25/2020

Gross Domestic Product: Quarter 1 2020

- According to estimates released by the U.S. Bureau of Economic Analysis, U.S. real GDP for the first quarter of 2020 contracted at a **4.8% annualized rate –** the worst contraction for the U.S. since the 2008 financial crisis.
 - The economic indicators used to estimate growth for the quarter primarily occurred **before** the non-essential business closures, massive layoffs and furloughs, and stay-at-home advisories.
 - In fact, Goldman Sachs believes the true U.S. decline for the quarter to be **closer to 8.25%**.
- MassBenchmarks estimates that Massachusetts real GDP declined by **6.1%** over the same period.

Gross Domestic Product: Remainder of 2020

- Our experts cited that, while Q1 2020 will be bad, some of the larger financial institutions predict that **Q2 2020 will be dramatically devastating for the United States** and **lead to historic losses in GDP for the year**:

Financial Institution	2020 Quarter 2 Est. Change	2020 Annual Est. Change
Bank of America	-30%	-10.4%
Goldman Sachs	-34%	-6.2%
Morgan Stanley	-38%	-5.5%

 - These estimated annual declines would all represent **the worst annual contraction since 1946**.

- Based on current unemployment levels, Prof. Clayton-Matthews believes "the actual decline in Massachusetts gross domestic product in the second quarter is expected to be on the order of **25-50%** on an annualized basis."

Shape of the Recovery

- As Dr. Anthony Fauci has said, **"you don't make the timeline, the virus makes the timeline."**
- This point was emphasized by our experts in terms of the timeline for an economic recovery.
- Modeling has become extremely challenging due to unknown variables like the peak of the virus, consumer confidence, and the odds of reoccurring infections.
- Our experts articulated that the shape of this economic recovery is particularly bound to the cause of our recession – the virus.

Shape	Characteristics
V	•Most optimistic recovery model; •Starts with sharp decline in GDP and spike in unemployment; •COVID-19 peak occurs in April/May and the recovery begins in the summer; •Federal programs to help businesses avoid layoffs are successful, helping production, manufacturing and services to start up immediately; •Pent up demand brings economic output back to pre-COVID-19 levels by end of 2020.
U	•More elongated recovery model; •Starts with sharp decline in GDP and spike in unemployment; •COVID-19 peak extends into the summer with stabilization/recovery in the second half of 2020; •Consumers are not totally confident, despite pent up demand; •Businesses and factories do not immediately return to full capacity and not every job lost due to the crisis is won back; •Recovery would occur more gradually between late 2020 and early 2021.
W	•Up and down recovery model; •Starts with sharp decline in GDP and spike in unemployment; •COVID-19 peak appears to be controlled, leading to loosening of stay-at-home advisories, business shutdowns and economic growth; •COVID-19 infections reemerge, leading to a second wave of stay-at-home advisories, business shutdowns and economic contraction; •Cycle continues until there is a widely available vaccine or other medical means of reducing the severity and spread of the virus.
L	•Sharp decline in GDP and spike in unemployment persists due to continued threat of COVID-19 into second half of 2020; •Extension of stay-at-home advisories and business closures disallows recovery; •Consumers demonstrate little confidence and largely limit spending; •Debts built before or during the crisis become more difficult to pay off, causing defaults and business bankruptcies.
✓	•Recovery model characterized by slow and steady recovery through 2021; •Starts with sharp decline in GDP and spike in unemployment; •Loosening of stay-at-home advisories and business closures is done slowly, gradually and methodically; •Consumers remain cautious, causing gradual return to pre-crisis economic levels.

Role of the Federal Government

- The federal government has provided more than **$2.6 trillion** in multiple economic and public health assistance bills.
- The series of bills – the largest being the **$2 trillion** CARES Act – projects to provide Massachusetts with over **$5.7B** for COVID-19 supports, including:
 - **$2.67B** from the Coronavirus Relief Fund
 - **$1.2B** from the Federal Transit Administration
 - **$546M** from the Department of Education
- Also, MA is one of only 9 states receiving more than **$10B** from the Small Business Administration's Payroll Protection Program.
- Additionally, the Federal Reserve has been and must continue to be active in order to assist with the recovery.
 - To date, it has made up to **$2.3B** available in relief loans for businesses and state and local governments.
 - It also lowered its **target interest rate to a range of 0 to 0.25%** at the start of March to promote borrowing.

Challenges:

- In many ways, the current federal assistance bills are restrictive on allowable spending, particularly **disallowing funds from being used to backfill revenue losses**. Federal funds during the Great Recession were much more flexible.
 - As an example, we were able to use enhanced Federal Medical Assistance Percentages (FMAP) funds to backfill revenue losses.
 - The CARES Act explicitly prohibits states from using the Coronavirus Relief Fund for the state share of Medicaid – thus removing a valuable tool.

FY 2020 Tax Revenue Impact: Current Performance

Tax Type	Total April Collections	$ Comp. to April Benchmark	Year-to-Date Collections	$ Comp. to YTD Benchmark
Income	**$1,122**	**-$1,895**	**$12,609**	**-$1,944**
Income Withholding	$1,053	-$34	$11,521	$2
Income Non-Withholding	$69	-$1,860	$1,088	-$1,946
Sales & Use	**$469**	**-$139**	**$5,791**	**-$174**
Corporate & Business	**$209**	**-$111**	**$2,434**	**$101**
Other	**$181**	**-$23**	**$2,212**	**$85**
Total	**$1,981**	**-$2,168**	**$23,045**	**-$1,932**

FY 2020 Tax Revenue Forecasts

- The majority of our experts refrained from providing FY 2020 tax revenue forecasts due to the extreme uncertainty of COVID-19.
- A 2% revenue loss from benchmark between March and June is much more significant, as the state does not have as many tools at its disposal to close a budget gap as it would at the start of the year.

Expert	FY20 Est.	$ Diff. from Bench.	% Diff. from Bench.
FY 2020 Benchmark: $30,288.00			
Center for State Policy Analysis at Tufts (average)	$29,663.00	-$625.00	-2.1%
Alan Clayton-Matthews	$29,692.00	-$596.00	-2.0%
Average	**$29,677.50**	**-$610.50**	**-2.0%**

FY 2021 Tax Revenue Forecasts

- Some of the biggest challenges in forecasting the upcoming fiscal year is once again the uncertainty of the timing and reemergence of the virus' peak, consumer confidence, as well as the impacts of federal stimulus bills.
- It is worth keeping in mind that these estimates were provided in mid-April. Given the continued shutdown and spread of the virus, more pessimistic economic outlooks are most certainly likely.

Expert	FY21 Est.	$ Diff. from CR	% Diff. from CR
FY 2021 Consensus Revenue Agreement: $31,151.00			
MassBudget (average)	$25,801.00	-$5,350.00	-17.2%
Alan Clayton-Matthews	$26,112.00	-$5,039.00	-16.2%
Mass. Taxpayers	$26,756.00	-$4,395.00	-14.1%
Center for State Policy Analysis at Tufts	$28,970.00	-$2,181.00	-7.0%

Historical Context

- To put these estimated revenue losses into perspective, consider the tax revenue declines experienced during the first two fiscal years of the Great Recession:
 - Over the course of FY 2009 and 2010, the Commonwealth saw an aggregated tax revenue decrease of **$4.14B** compared to the two respective consensus revenue agreements.
 - Based on our experts' testimony, FY 2021 tax revenues will likely eclipse those aggregated losses in one year.

FY	CR Agreement	Actual Collections/ Projected Estimate	Difference	% Change
2009	$21.23	$18.26	-$2.97	-14.0%
2010	$19.71	$18.54	-$1.17	-5.9%
Total Difference			**-$4.14**	**-10.1%**
2021	**$31.15**	**$26.43**	**-$4.72**	**-15.1%**

*FY 2021 projected estimate is based on the average updated forecasts from annual consensus revenue hearing participants.

Historical Context

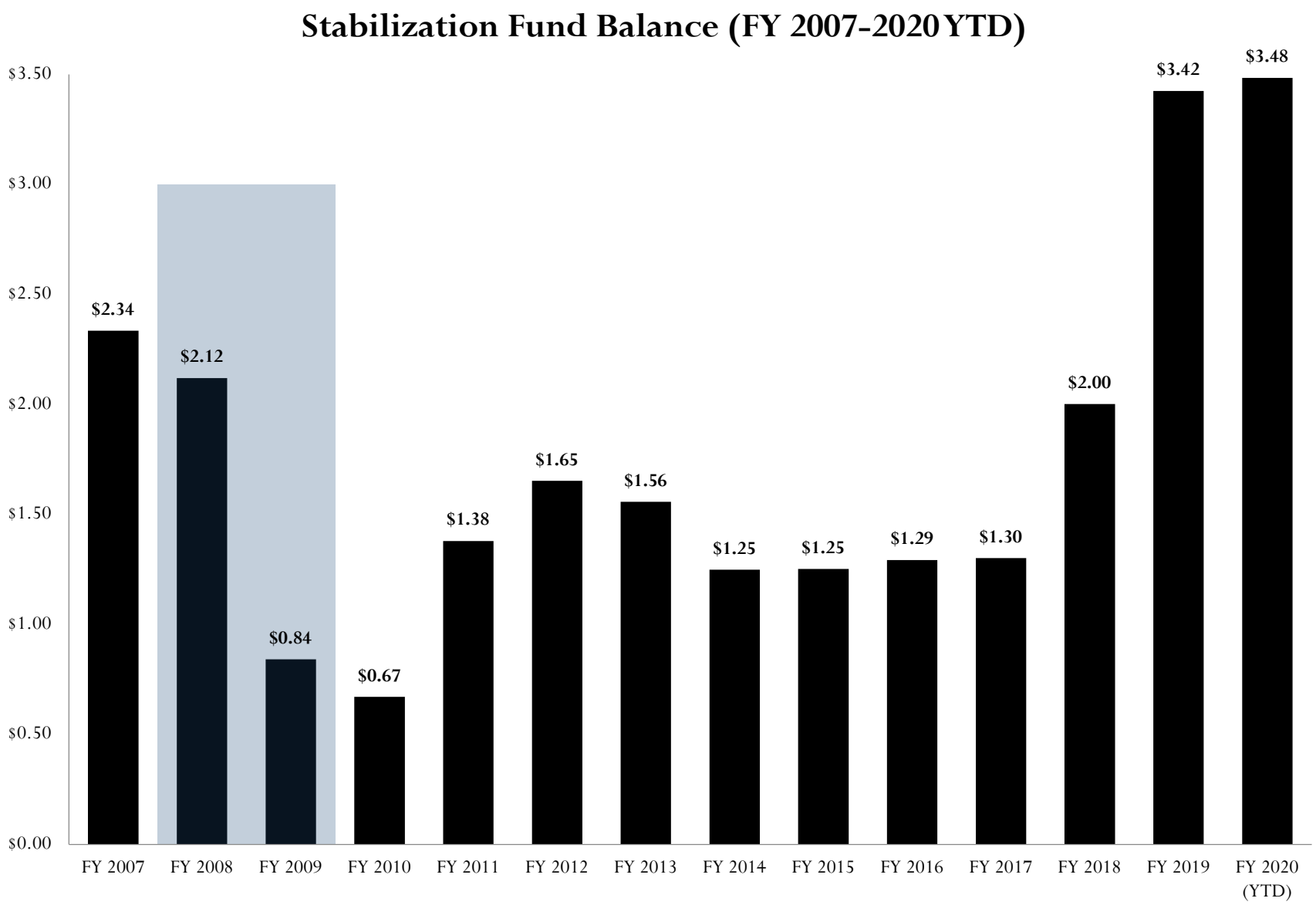
- The Great Recession, while different in terms of the root cause of the economic downturn, can provide us with some important context relative to the challenging budget decisions ahead of us.
- Over the course of FY09-10, some of the difficult cuts and policy solutions made by the Legislature and Governor included:
 - **$378M (28.8%)** for UGGA;
 - **$195M (29.7%)** for institutions of higher education;
 - **$96.9M (42.1%)** for Special Education Circuit Breaker;
 - **$20.8M (30.5%)** for Regional School Transportation;
 - **$18.5M (31.7%)** for Regional Transit Authorities;
 - **$20.5M (10%)** for energy and environment programs;
 - **$48.4M (8%)** for the Trial Court;
 - Increasing the sales and use tax from **5%** to **6.25%**;
 - Increasing state employees' health insurance premium contributions by 5% with the highest contributions rising from **20%** to **25%**;
 - Extending the state pension schedule by two years;
 - Layoffs of more than 1,600 state employees and furloughs across state government.

Strengths and Weaknesses of Massachusetts

- Moody's Analytics has run state "stress test" models and indicates that Massachusetts has typically performed well in tougher economies due to robust healthcare and education industries – given historical data, their model still suggests that we will be buoyed by those sectors.
- Professor Goodman agrees, saying that **"even through some of the worst economic experiences that we've had, our health care institutions have grown and added jobs. Similarly, higher education has had its challenges during downturns, but both have been stalwart counter-cyclical employment stabilizers."**
 - However, Professor Goodman notes that, given the public health crisis, hospital systems have been forced to cancel elective procedures, forgoing billions of dollars.
 - Similarly, institutions of higher education are in a state of complete unknowing in terms of enrollment, revenue streams and simply the ability to house students on campus in the fall.
- All of these points return to the fact that this pandemic is unlike anything we have ever seen in terms of the public health implication, as well as the economic ramifications.

Strengths of Massachusetts

- **Stabilization Fund:** since FY 2017, we have added **$2.18B** to our reserves.
- While this seems substantial, keep in mind that between FY 2007-2010 we drew down the fund from **$2.34B to $670M**.
- **Tax Structure:** Moody's notes that MA has a stable tax revenue base compared to other states, and has done a fair job de-risking our budgeted tax revenue sources by not overly relying on volatile collections like capital gains.



Weaknesses of Massachusetts

- Massachusetts has been one of the most severely impacted states by COVID-19. Based on the magnitude of the public health crisis here, it is fair to assume that we will lag behind the nation in terms of our economic recovery.
- Moody's Analytics lists **Massachusetts as one of the most vulnerable states**, based on some of the following demographic features:
 - **Exposure to the virus** – calculated by the number of infections, as well as the level of international travel
 - **Demographics** – based on population density, portion of population ages 65 and older, and levels of migration
 - **Global interconnectedness** – number of airline passengers and percent of export trade
 - **Finance** – reliance on securities industry, as well as investment income share
 - **Tourism** – levels of employment in accommodations
- **Bottom line:** the public health aspect of this recession potentially positions Massachusetts in a worse position than historic recessions, meaning the playbook on how to counter this economic downturn will likely need to be revamped.

Questions?

Town of Arlington, Massachusetts

Discussion: Policy Review / Code of Conduct

Summary:
Diane M. Mahon, Chair
Joseph A. Curro, Jr., Select Board

ATTACHMENTS:

	Type	File Name	Description
🗋	Reference Material	AM20_SocialMedia_PoliciesEthicsLaw.original.1579838705.pdf	Social Media Policies
🗋	Reference Material	AM20_Civility_CodeOfConduct_Southborough.original.pdf	Civility Code of Conduct from Southborough
🗋	Reference Material	AM20_Civility_FieldServices_CalmingTheCrowd.original.pdf	Calming the Crowd
🗋	Reference Material	AM20_PublicSpeaking_Civility.original.pdf	Public Speaking and Civility
🗋	Reference Material	AM_Civility_CodeOfConductHandout_Acton.original.pdf	Civility Code of Conduct from Acton



SOCIAL MEDIA: POLICIES, ETHICS AND THE LAW

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ATTORNEYS AT LAW

DISCLAIMER

This presentation is for informational and training purposes only and should not be considered legal advice.

WHERE ARE THE LINES BETWEEN LEGITIMATE DISCOURSE AND ACTIONABLE CONDUCT?





Is everything protected free speech?



As an elected official, should you be subject to more abusive behavior?



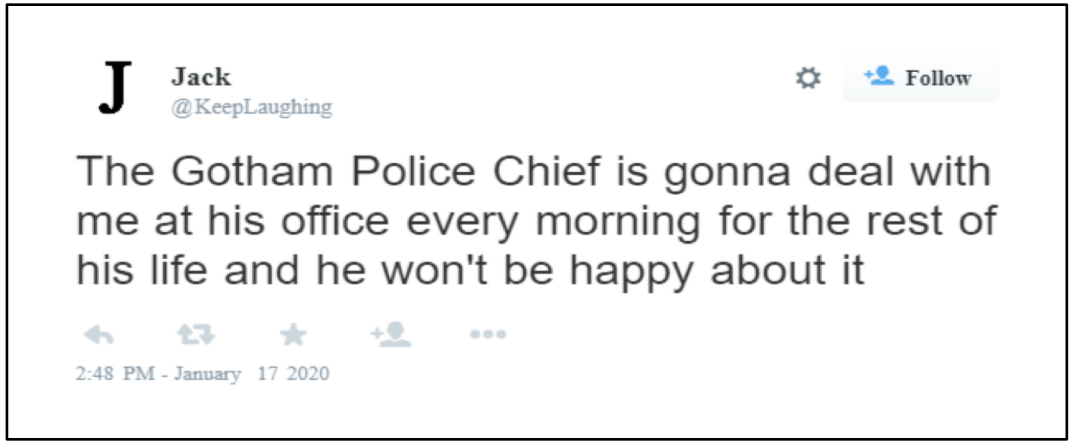
What about employees? Do they have to accept online abuse as part of the job?



Does it make a difference what position they hold?

WHAT TO DO WHEN…

- A member of the public is harassing and/or threatening one of your public employees/officials via social media?





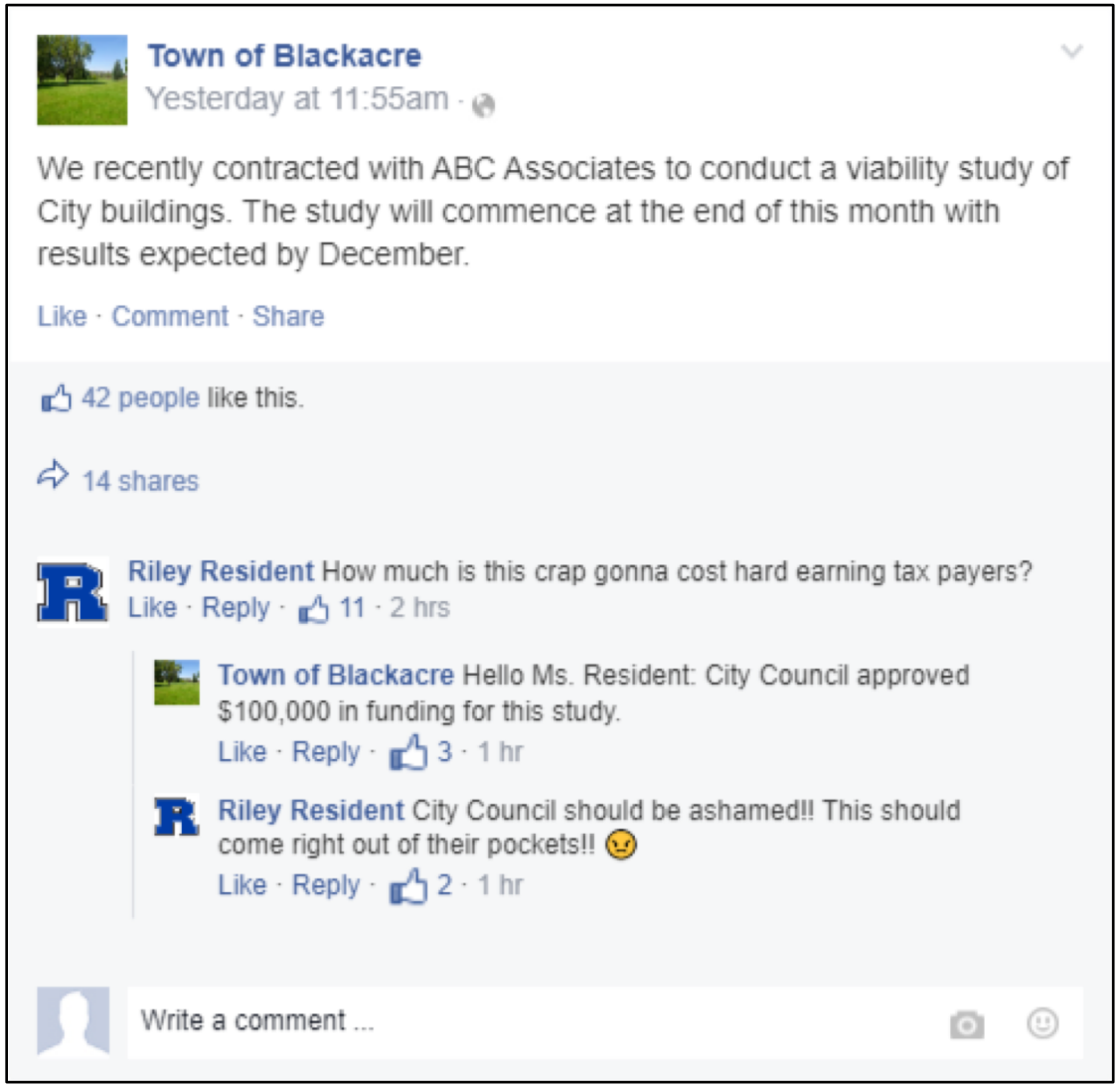
VENUES FOR VENTING

There are several social media forums available to the public to “vent” about public employees and officials:

Facebook	LinkedIn
Twitter	YouTube
Instagram	Yelp/Google Reviews
Snapchat	Personal blogs

POSTING AND HOSTING

- If the individual posts directly on a municipality's social media account, then the municipality may be able to formulate a response.
- If your goal is to share information via social media, do you need to allow commentary?



POSTING AND HOSTING

- If the municipality's page has clear terms of use subjecting certain content to removal and the individual's post violates those terms, it may be removed.
 - For public records retention purposes, a screenshot of the post must be maintained before removing it.
- Social media websites and applications may also remove posts that are inconsistent with their terms of use. In this case, municipalities should attempt to obtain a screenshot of the post in the event it is later removed by the hosting website or application.

POSTING AND HOSTING

When individuals post on social media websites and applications not operated or hosted by a municipality, it can be difficult to respond to the post and to have it removed.



FIRST AMENDMENT

Social media websites and applications provide the public with the opportunity to make their own posts or comment on others – this creates a First Amendment issue

Without explicit limitations on use, social media accounts that permit public comment could constitute open public forums

- To avoid creating an open forum: disable commenting so your communication to the public is one-way

Alternatively, permit comments but designate your social media account as a "limited public forum"

FIRST AMENDMENT

- Draft “Terms of Use” and link to them on all your social media accounts
- Clearly state the page is **not an open public forum;**
- Clearly state that the page is limited to specific subject matter (e.g., Fire Department, Council on Aging, Public Schools, Recreation Department, etc.)

FIRST AMENDMENT

- Clearly and explicitly reserve the right to remove comments:
 - That are off-topic;
 - That include obscenity, fighting words, true threats, commercial promotions or advertisements;
 - That are harassing or discriminatory on the basis of race, creed, color, national origin, religion, age, gender, or sexual orientation or any other protected class; or
 - That encourage illegal activity

FIRST AMENDMENT

If your municipality has social media accounts, consult legal counsel before deleting any user's post or comment from that account and seek guidance

You could violate the First Amendment if…

- You only remove off-topic posts when they are negative; or
- You remove posts based on their content, instead of the explicit (narrow) grounds for removal stated in your policy;
- If you create a limited public forum, you cannot remove posts because of viewpoint

PUBLIC RECORDS



Any electronic communication created or received by a public employee/official in his or her capacity as such is subject to retention and possibly disclosure, in whole or in redacted part, under the public records law



Communications made on social media accounts are not archived – you will need to develop a system for retaining all information appearing on your social media accounts. (Contact the Municipality's IT Department)



If you inadvertently post content that is inaccurate or if you receive negative feedback on a post – don't delete.

Edit or update and make it clear the post was modified.

SAMPLE POLICY AND VIOLATION

POLICY

If you are creating content you know will be posted publicly on a the Town's Facebook page, you agree not to post anything illegal, obscene, threatening, or fraudulent (you have to be who you say you are). If you don't follow these rules, we can remove the publicly posted content. Also remember that any information submitted to the Town is subject to Massachusetts Public Records Law (learn more in our Privacy Policy).

VIOLATION



HARASSMENT

M.G.L. c. 265 § 43A makes it a crime to willfully and maliciously engage in a knowing pattern of conduct or series of acts over a period of time directed at a specific person which seriously alarms that person and would cause a reasonable person to suffer substantial emotional distress.

Under M.G.L. c. 258E, an individual may obtain a restraining order against someone that engages in three (3) or more acts of willful and malicious conduct aimed at a specific person committed with the intent to cause fear, intimidation, abuse or damage to property and that does in fact cause fear, intimidation, abuse or damage to property

THREATS

Under M.G.L. c. 275, § § 2 – 4, it is illegal to threaten to commit a crime.

CASE STUDY - SCITUATE

- Candidate for Board of Selectmen
- Convicted felon, sex offender
- Active Facebook presence
- Some people thought it was entertaining and funny

IS THIS ACCEPTABLE CRITICISM OF A PUBLIC OFFICIAL?

- Police Chief was accused of:
 - Sexually assaulting a minor
 - Smoking crack
- Threats against Chief's family members

CRITICISM COMES WITH THE TERRITORY – WHY IS THIS DIFFERENT?

- The material never goes away
- Easy to start rumors and promulgate false accusations
- False accusations easily resurrected by re-tweeting or by adding new comment to Facebook content
- The employee can see ”likes,” comments, re-tweets, etc.
- Is it realistic to ask the employee to ignore it?

HOW DO YOU KNOW IF YOU MUST ACT?



- Has the employee complained or asked you to intervene?



- Has a threat been posted?



- Has a town official participated in the objectionable activity? Why is that relevant?

STRATEGIES TO RESPOND AND SUPPORT EMPLOYEES AND OFFICIALS

Preserve the objectionable content

- Screen captures
- photographs

Contact the social media host

- Facebook community standards
- Reporting abusive or harmful conduct to Twitter
- They will remove content
- Suspend user's rights

STRATEGIES (CONT.)

- **Public discussion of the problem**
 - Speaking out against objectionable behavior
 - Legitimizing vs. marginalizing bad behavior
 - Should you or your fellow officials participate on a Facebook forum that permits objectionable content?
 - Asking fellow officials to boycott if the hosts don't police content

CROSSING THE LINE – DISTINGUISHING THREATS FROM CRITICISM



Does the employee or official have a reasonable fear of death or serious bodily injury?



Does the employee have a reasonable basis to fear this person?



Are others in fear of this person?

ASSESSING THREATS (CONT.)

- Person's history – propensity toward violence
- Based on race, ethnicity, gender, orientation, etc.
- History of mental illness/instability
- Escalating rhetoric
- Access to weapons
- Engaging law enforcement professional to review

LAW ENFORCEMENT'S ROLE

If you're not sure whether there was a crime, ask

Providing legal representation/advocacy for your employees

Involving the District Attorney's office

- Perceived or alleged conduct by having your Police Department
- They may defer immediate action, but they are on notice and may act on subsequent allegations

Q + A

TOWN OF SOUTHBOROUGH POLICIES AND PROCEDURES

Policy:	Code of Conduct Policy
Date Approved:	April 25, 2016
Board approval:	Board of Selectmen

1. Purpose and Scope

1.1 The purpose of this policy is to indicate conduct expected by employees and officials of the Town of Southborough when conducting business with other employees, customers, vendors, and visitors, who interact with the Town, either on a daily or more infrequent basis. This policy extends to private conduct, to the extent the law has additional requirements on public employees.

1.2 Nothing in this policy limits or replaces rules of conduct described in Massachusetts General Laws Chapter 268A, (Chapter 268A and Regulations are referred to in this policy as "State Public Employee Ethics Laws") regarding the conduct of a public employee, including Town employees as described in the law and regulations.

1.3 Nothing in this policy limits or replaces other Town policies that address employee conduct, such as the Town's Workplace Violence Prevention Policy, Policy Against Sexual and Discriminatory Harassment, and the Town's Alcohol & Drug Policy, and other policies applicable to employee conduct.

2. Applicability

2.1 This policy applies to all full and part-time compensated positions, excluding employees of the School Department. Employees whose positions are covered by collective bargaining agreement are subject only to those portions of the policy which are not separately regulated by a collective bargaining agreement. Persons employed under individual employment agreements shall follow all of the provisions of this policy.

2.2 This policy does not replace applicable law, including State Public Employee Ethics Laws, but instead applies in addition to applicable law. In the event this policy conflicts in any way with laws governing employee conduct, the law will apply over this policy, to the extent that it is stricter.

3. Policy

3.1 Employees and town officials must act with fundamental honesty and integrity in all Town dealings, comply with all by-laws/regulations that govern the Town, maintain an ethical and professional work environment and comply with all Town policies. Town employees and officials are required to consistently treat fellow employees, customers, vendors, and visitors with respect, dignity, honesty, fairness, and integrity.

3.2 As further described in State Public Employee Ethics Laws, and among other requirements set forth in the law, Employees and town officials may not, directly or indirectly, ask, demand, exact, solicit, seek, accept, receive or agree to receive anything of value for themselves or for any other person or entity for or because of any official act performed or to be performed by the employee, to influence any official act performed or to be performed, to influence or attempt to influence any official act performed or to be performed, or to act in a manner which would cause a reasonable person to conclude that the employee could be influenced in such a manner.

3.3 Examples of conduct that is considered inappropriate and/or unprofessional under this policy may be physical and/or verbal and include, but are not limited to, the following:

a) Asking or requiring another individual to act unethically or violate the Town's Professional Conduct Policy or the law;
b) Disparaging or misrepresenting the Town or any Town employee or official;
c) Engaging in gambling, such as sports' pools, card games, games of chance, and raffles while conducting Town business or representing the Town;
d) Discriminating against others on the basis of race, sex, sexual orientation, age, handicap, religion or national origin in the course of your employment;
e) Engaging in any behaviors that are harassing, including sexual harassment or offensive comments or jokes;
f) Consuming and/or using alcohol, non-prescribed narcotics or controlled substances during work time, or reporting to work under the influence of alcohol, intoxication, non-prescribed narcotics or controlled substances in any form. You should inform the Assistant Town Administrator or your supervisor at the start of the workday if you are taking medication that might impair your work performance, in order that proper accommodations can be considered and made where reasonable.

g) Unprofessional behaviors, commentary, written correspondence and/or gestures directed at another Town employee or official, supervisor, customer, visitor or resident that a reasonable person would find offensive, humiliating or intimidating or that adversely affect staff performance.

3.4 Employees and town officials shall obey the laws of the United States and the Commonwealth of Massachusetts. Any employee who is convicted of a crime relating to their employment or impacting their employment, or crimes which may disqualify them from holding necessary certifications or licenses, may be subject to disciplinary action, up to and including termination. Employees are, where applicable, subject to meeting CORI background screening requirements, subject to Town requirements and applicable law, including the law governing CORI.

3.5 Employees shall comply with all of the policies and operating procedures of the department in which they work and the Town of Southborough. Employees shall respond forthright to the work-related directives of their supervisor.

3.6 Employees and town officials are expected to conduct themselves in their official relations with the public and with their fellow employees in a manner which will enhance public respect for, and confidence in, the employee and the Town as a whole. Employees and town officials must not only perform their duties in a wholly impartial manner, but must avoid any conduct which gives a reasonable basis for the impression of acting otherwise. Specifically, all employees and town officials shall avoid any action which may result in or create a reasonable basis for the impression of:

a) Using public office for private gain;
b) Giving preferential treatment to any citizen;
c) Making work-related decisions contrary to departmental town policy; and,
d) Using one's official position to harass or intimidate any person or entity.
e) No municipal employee shall, otherwise than as provided by law for the proper discharge of his/her official duties, directly or indirectly receive or request compensation from anyone other than the town or municipal agency in relation to any particular matter in which the same Town is a party or has a direct and substantial interest.
f) No person shall knowingly, otherwise than as provided by law for the proper discharge of official duties, directly or indirectly give, promise or offer such compensation.
g) No municipal employee shall, otherwise than in the proper discharge of his/her official duties, act as agent or attorney for anyone other than the city or town or municipal agency in prosecuting any claim against the town, or as agent or attorney for anyone in connection with any particular matter in which the same town is a party or has a direct and substantial interest.

h) Employees and town officials shall not solicit or accept, directly or indirectly, any gift or benefit, including any gratuity, favor, entertainment, loan, or any other item of value, from a person who or entity which the employee knows or has a reason to know:

- Has, or is seeking to obtain, contractual or other business or financial relations with his/her department or the Town;
- Conducts business or other activities which are regulated or monitored by the department or the Town, except as permitted by statute or regulation;
- Has interests that may be substantially affected by the employee's performance or non-performance of his/her duties or has the appearance of being substantially affected; or
- Seeks to influence the employee in performance of his official acts or any act within their official responsibility.

Exceptions- the restrictions set forth in Section 3 do not apply to the following gifts provided that such gift or benefit has not been solicited by the public employee, and is not for any of the purposes identified as prohibited above, and/or in the State Public Employee Ethics Laws:

a) *De Minimis* Gifts. Anything with a value of less than $25, other than cash. *De minimis* gifts include multiple gifts or benefits given or offered to a public employee within a calendar year by

one person or by an organized group of persons having a common interest in a particular matter or legislation before that public employee, if the aggregated value is less than $25;

b) *Inheritance.* Anything received by inheritance;

c) *Gifts from Immediate Family and Relatives.* Anything received by a public employee from a member of the public employee's immediate family or from a great grandparent, great grandchild, grandparent, grandchild, uncle, aunt, niece, nephew, cousin, step-parent, stepchild of the public employee or of the employee's spouse and given for reasons unrelated to the public employee's official position or duties;

d) *Informational material.* Informational material relevant to a public employee's official functions and intended for use by the public employee in the exercise of official duties or solicited for the purpose of promulgating, administering and enforcing agency regulations, such as books, pamphlets, reports, documents, periodicals, or other information that is recorded in a written, audio, electronic, or visual format;

e) *Professional Organization Membership Fees.* Reduced or waived membership or other fees offered by a professional organization if the only requirements for membership relate to professional qualifications;

f) *General Discounts.* A rebate, discount or promotional item available to the general public or to a class consisting of all public employees from a city or town, county or state on the same terms as offered to the general public;

g) *Display Items for Meritorious Public Service.* An item intended for display and given by a civic, charitable, professional, religious, or fraternal organization in recognition of meritorious public service that has no or minimal resale value. Such items shall include but not be limited to trophies, plaques, bowls, and certificates;

Honoraria. Honoraria not exceeding $250.00 for participating in a legitimate speaking engagement provided that:

- Delivering the speech is not part of the public employee's official duties;
- Public resources are not used in the preparation of the speech;
- Public time is not taken for the preparation or delivery of the speech;
- Neither the sponsor of the address nor the source of the honorarium is a person or entity with whom the public employee has had or reasonably expects to have dealings in his official duties;
- The public employee makes a prior written disclosure.

4. **Actual or Potential Conflicts of Interest, Violations of this Policy, or Violations of the Law:** Employees and town officials should immediately report and make inquiry about questionable items, gifts, benefits, or matters. Inquiries can be made with the Town or employees may go directly to the Town Administrator or to the Ethics Commission at 1-888-485-4766 (Attorney of the Day).

5. Procedures / Investigations

5.1 A violation of any aspect of this policy can damage the integrity and harm the reputation of the Town of Southborough and all employees and town officials, and may additionally place the employee in violation of Massachusetts law. The Town is fully committed to reviewing and/or investigating, as necessary, any and all reported incidents. Employees who become aware of inappropriate conduct should report it to their Department Head or Town Administrator.

5 .2. When management becomes aware of an incident, they shall document the incident as soon as possible and forward said information to their supervisor.

5.3. A decision to deal administratively with the employee and/or to have the employee consult with EAP shall be made as promptly as possible by the Town Administrator or his/her designee, and management should continue an on-going review.

5.4 Employees may have separate reporting requirements under the Massachusetts Ethics Law, which are in addition to those described in this policy. Employees must be aware of these reporting requirements, and when and under what circumstances Massachusetts State Ethics law requires employees to make such Disclosures, including as directed by State law.

6. Applicable Statutes / Laws

A number of laws are implicated by this policy, which outline unacceptable or unethical conduct in the workplace. These include, but are not limited to, any number of criminal and civil laws prohibiting unethical conduct, such as Massachusetts General Laws Chapter 268A, and Massachusetts Regulations at 930 CMR 5.00 et. Seq. (Chapter 268A and Regulations are referred to in this policy as "State Public Employee Ethics Laws"), as well as any criminal or civil laws in the areas of anti-stalking laws, anti-bullying laws, OSHA, anti-discrimination, Civil Rights, etc.

ACKNOWLEDGEMENT

Note: Your signature below signifies that you have received this policy.

This policy is applicable to all employees of the Town of Southborough.
For those employees covered by Collective Bargaining Agreements, the provisions of the CBA, which are subject to negotiation prevail over the language in this policy (i.e. discipline).
Any changes made to this policy that apply to sections that are subject to collective bargaining, will be sent to the appropriate union prior to implementation.

Name_____

Title_____

Department_____

Date_____

Calming the Crowd

Think you might be facing an angry public at your next board meeting? Here are strategies for handling the situation

By CHARLENE ZOERB and MARY ANN FRIEDMAN

The true test of a school board is how it handles a meeting when there is an angry public on the other side of the board table.

Ideally, even in this situation – especially in this situation – a board lets its community know it values public input. (In fact, it has both a moral and a legal obligation to listen to members of the public.) One of the key roles boards play is as a conduit for information between the community and the district administration.

But a board also needs to keep a meeting on course and prevent it from escalating into an out-of-control shouting match that leaves both the board and the public feeling angry and frustrated. That's not productive for anyone.

Here are some ideas on how to calm a crowd.

Be ready for a difficult meeting Sometimes a hostile audience is entirely predictable. Perhaps the board is proposing something controversial, like redistricting, eliminating personnel, or cutting sports or after-school activities. In the tough economic times we're facing, board meetings are bound to become more contentious as there are disagreements over what to do with shrinking resources. Other times public reaction might take the board by surprise: members pull up to a parking lot that's full or walk into a room that is overflowing.

If you hear whispers from community members that would lead you to think that a large number of people are planning to attend the next board meeting, make sure you tell your board president. He or she can alert the superintendent and the other board members. It's best if the board and the administration know what's coming and can prepare for it.

If you usually meet in a board room with limited seating because you rarely have a crowd, consider moving the site of your meeting to an auditorium or a cafeteria, and have lots of chairs set up. This will accomplish several things.

First, it will make community members more comfortable. When you try to crowd 100 people into a small area, they are more likely to become agitated. If you set up 200 chairs in a cafeteria (when you're expecting 100 people) it gives everyone a place to sit and keeps the air moving in the room. Because people are not on top of each other, or on top of the board, everyone has some personal space and is more relaxed.

There is an ancillary benefit, as well. A meeting that attracts 100 people but is conducted in a room set up for 200 looks very different than one that attracts 100 people but is in a room set up for 50. If the meeting is being covered by the media, it's not a "standing room only," meeting if everyone is sitting!

Acknowledge the crowd and the emotion Often the board president can preempt an ugly situation by making some opening comments and welcoming the public to the meeting. Some boards even prepare a written statement that they will read. Basically, it's useful to say something like this: "Thank you all for coming tonight. There is a large crowd here and we certainly respect the fact that you all took time out of your schedule to come to the meeting. We value public involvement in our school district and we are anxious to hear what you have to say." Acknowledge that people are there for a reason and assure the public you're interested in what they have to say.

Be proactive and demonstrate tone and control ahead of time The board president should smile and try to seem relaxed and friendly when facing the public. Set the stage for public comment. The board's tone and demeanor will greatly influence that of the public.

Control expectations from the beginning on what will happen at the meeting "We'll probably take the information you have and your questions and then get back to you. We may get back to you in different ways depending on the questions you ask. If you ask something about a student, we may get back to you personally. If it's an issue that many of you have come here tonight to talk about, we may hold a special meeting or continue this discussion at the next meeting."

Talk about how the public comment period works Most boards have a policy governing public comment procedures at meetings. Typically each individual has perhaps three to five minutes to speak, and there is often an overall limit for the total amount of time that can be spent on the public comment section of the meeting –perhaps 30 minutes or an hour. The board president should explain the board's policy and procedures.

The president should tell those assembled that time limits will be enforced (it's important to enforce them for *all* speakers), and that everyone must treat their fellow citizens and the board members with courtesy and respect. Note that all comments should be addressed to the table and to the presiding officer – not to members of the audience.

Consider extending the public comment period If you have many people wanting

to comment, chances are you'll run out of time on your allocated public comment session. It only takes a dozen people speaking five minutes each to consume an hour's worth of public comment time.

If the issue that is controversial is up for a vote that evening (or even if it's not actually on the agenda), the board can always vote to extend the meeting's public comment period.

Boards should remember they can always add comment time at the end of their meeting, too. The board can say something like this: "We will have an hour of public comment session right now. Then we will close the public comment session because we need to get to other board business that is on the agenda tonight. But after that is finished, we will re-open the meeting for public comment. You are all welcome to stay and we are anxious to hear what you have to say." While there may be some grousing about this – after all, to most people the most important part of a meeting is the part *they're* interested in – it's a fair way to move the meeting along and complete the board business that is on the agenda.

Consider adding an additional meeting for public comment If there are still more people who want to comment than there is time that evening, think about telling your public this: " We'd like to propose a session just for public input on the budget cuts." Hold an open forum of, say, two hours, just to hear comments. With no other business to conduct, the board can really concentrate on what their community has to say.

Memo to all board members: watch your body language Every member of the board should sit quietly and attentively while people are commenting. Make eye contact with the person speaking. Board members should not be checking their Blackberry, texting, rolling eyes, sighing or drumming their fingers on the table.

Don't underestimate how bad body language can alienate the public. A board member who leans over and whispers to a fellow board member while a parent is at the microphone might be saying something like "she has a good point," but we guarantee people in the audience will *think* the board member is whispering something like: "there she goes again."

It's a public comment period, not a question and answer period Board members should avoid getting drawn into give-and-take with members of the public. If the public puts a question to the board, the president should share all the facts and information possible. But board members need to be careful before commenting on a situation they may not be fully informed about, such as something that has happened inside one of your schools. It's fine to say something like: "Our superintendent or our business administrator will be happy to get back to you with an answer on that within 24 or 48 hours, as is our policy. Please make sure we have your name and telephone number or e-mail address so that we can reach you." Remember, a public comment period is just that – a chance for citizens to have their say. It's not a debate period.

Have a plan How will you handle the situation if there are negative comments made between community members? What happens if someone goes over their allotted speaking time? What if someone refuses to step away from the microphone? The board should have an idea of how to handle these situations.

If things get really testy, it may be necessary to recess the meeting–even temporarily. One NJSBA field service representative was in a meeting where a member of the public actually threw something at the board and hit a board member. "The meeting was being held at a school library and the guy wadded up a bunch of papers with masking tape to make a big ball and then threw it," she remembers. "The board handled it by announcing they were going to adjourn for 15 minutes." The board members left, went into another room to allow time for everyone to cool off, and came back. Meanwhile one of the board members spoke to the leader of the community group that the offender was a member of and suggested they get their supporters under control.

In extreme cases, of course, it might be necessary to call in the authorities if a meeting really gets out of control. We are happy to report that is a very rare circumstance.

End on a good note If you're responding to an individual, reiterate what they've said and thank them for their input. "We understand you are very concerned about the program cuts and the impact on your daughter's education next year. Thank you for your comments."

Discuss your next steps Let the public know what your next steps will be in discussing some of the issues raised, addressing the questions asked, and providing additional and ongoing information related to the topics discussed. Say something like: "We have heard a lot of questions tonight. We're going to be gathering additional information and we will provide more details at our next meeting, which is scheduled for two weeks from now."

Close on a confident note Reassure the public that the board and administration are up to the challenge of providing a quality educational program for their students while dealing with these difficult times. Student success will be the top priority that guides the board's decision making.

Remember the Seven Critical "C"s The best board members convey the following image when communicating with the public: they are calm, cool, collected, concerned, credible, capable and confident. **sl**

Charlene Zoerb and **Mary Ann Friedman** are field service representatives with NJSBA. They can be reached at czoerb@njsba.org and mafriedman@njsba.org.

MMA | Massachusetts Municipal Association

Use Your Voice:

Public Speaking and Civility in Local Government

Dottie Fulginiti, Member, Easton Select Board

Patrick Guerriero, co-founder, Civitas Public Affairs Group

MMA Annual Meeting

January 24, 2020



Dottie Fulginiti
Chair, Easton Select Board
dfulginiti@easton.ma.us

Preparing for success

- Be sure the meeting space can comfortably accommodate the anticipated crowd
- Thank everyone for coming and set the ground rules
- Have a start and end time
- Consider having a “side room” for issues that need personal attention
- Consider ways to engage the public for their help on the issue - give them a role
- If all else fails, call a brief recess

Setting the tone

- Have a plan
- Speak with your town administrator, other staff and fellow board members to set the expectations
- Brainstorm all scenarios “what do we do if….”
- Smile, relax and remain calm and in control
- Breathe and be aware of the energy in the room
- Practice ways to redirect discussion in a positive way
- Remember to thank people for their respectful dialogue
- https://youtu.be/Ng_-HgRfGBY

“Citizens of Pawnee,” You Tube, November 28, 2012

Top 5 Lessons from Melrose's Civility Initiative

1. Civility starts with yourself....not others
2. Think outside-the-box of City/Town Hall
3. Civility can and should be measured
4. Community-wide civility comes with a cost
5. Sustainable civility has a personality



Fox News, January 1999

Policy Development

Visitor Code of Conduct

- Adopted by the Town of Acton, posted in public buildings
- Lists what the town will not tolerate
- Also includes focus on common sense behavior
- Not a “Workplace Violence” policy but emphasizes anti-harassment principles for all persons entering town facilities

Policy Development, II

Employee and/or Appointed/Elected Official Policy

- Distribute/train city/town employees
- Nothing here replaces State law [Ch 268A] or CBA's
- "must act with fundamental honesty/integrity"
- Do: act with respect, dignity, fairness
- Don't: disparage/misrepresent the City/Town through actions, written correspondence, gestures
- Always: treat others in manner that enhances public respect & confidence in entire City/Town

"So let us begin anew—
remembering on both
sides that civility is not a
sign of weakness, and
sincerity is subject to
proof."

-John F. Kennedy

VISITORS - CODE OF CONDUCT

The Town of Acton's employees strive to provide a positive experience for those visiting Town facilities, by following the "Professional Standards of Conduct Policy". In addition, the Town supports a workplace that is conducive to personal safety and security and is free from intimidation, threats or violent acts. The Town does not tolerate workplace violence, including the threat of violence by anyone who conducts business with the Town.

The Town will not tolerate harassing conduct that affects employment conditions, that interferes unreasonably with an individual's performance or that creates an intimidating, hostile or offensive work environment.

Complying with this Code of Conduct is required by all people doing business with Town employees.

Violators who do not comply with this policy may be asked to leave the premises.

Expected Conduct

- AVOID CAUSING DISTURBANCES OR DISRUPTIONS
- SHOW RESPECT FOR OTHERS, BUILDING FACILITIES AND PERSONAL PROPERTY OF OTHERS
- USE COMMON COURTESY WHEN INTERACTING WITH OTHERS
- DO NOT ENGAGE IN ANY LEWD OR OFFENSIVE BEHAVIOR
- ANY FORM OF VIOLENCE IS PROHIBITED
- SMOKING, DRINKING ALCOHOL OR APPEARING TO BE UNDER THE INFLUENCE OF ANY ILLEGAL SUBSTANCE IS PROHIBITED

Repeated violations may result in permanent suspension of facility privileges.

Thank you for your cooperation!

Steven L. Ledoux, Town Manager

Town of Arlington, Massachusetts

Discussion: June 2020 Select Board Meetings

ATTACHMENTS:

	Type	File Name	Description
🗋	Reference Material	June_2020_Calendar.pdf	June Calendar

JUNE 2020

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	1	**2**	**3**	**4**	**5**	6 Annual Town Election
7	**8**	**9**	**10**	**11**	**12**	13
14 Flag Day	**15**	**16**	**17**	**18**	**19**	20
21 Father's Day	**22**	**23**	**24**	**25**	**26**	27
28	**29**	**30**				



Town of Arlington, Massachusetts

Articles for Review:

Summary:

Article 50 Endorsement of CDBG Application
Article 51 Revolving Funds
Article 52 Endorsement of Parking Benefit District Expenditures

ATTACHMENTS:

	Type	File Name	Description
🗋	Reference Material	Draft_Final_Votes_and_Comments_Re_Articles_50__51_and_52.pdf	Draft Final Votes & Comments
🗋	Reference Material	W._A._52_Reference.pdf	W.A. #52 Reference

Town of Arlington
Legal Department

Douglas W. Heim
Town Counsel

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Arlington, MA 02476
Phone: 781.316.3150
Fax: 781.316.3159
E-mail: dheim@town.arlington.ma.us
Website: www.arlingtonma.gov

To: Select Board

Cc: Adam Chapdelaine, Town Manager
John Leone, Town Moderator

From: Douglas W. Heim, Town Counsel

Date: May 14, 2020

Re: Draft Votes and Comments re: Articles 50, 51, and 52.

I write to provide the Board Draft Votes and Comments regarding the above-referenced 2020 Annual Town Meeting Warrant Articles, all of which are considered necessary financial articles for continued Town and community operations in FY 2021.

ARTICLE 50 ENDORSEMENT OF CDBG APPLICATION

VOTED: That the Town hereby endorses the application for Federal Fiscal Year 2021 prepared and approved by the Town Manager and the Select Board under the Housing and Community Development Act of 1974 (PL 93-383), as amended.

(5 – 0)

COMMENT: Presented above is the annual vote to endorse the Board's application and disbursement of Community Development Block Grant funds. Further details on grant distribution may be found in the appendix attached hereto. This article is necessary to bring before our abbreviated Town Meeting session in order to both maintain the Town's eligibility for

these federal funds and to distribute same. Town Meeting will note that this year's application includes substantial funds aimed at offering rental assistance for low-income Arlington residents in need due to the COVID-19 pandemic, in addition to traditional resources and supports offered through CDBG funding.

ARTICLE 51 REVOLVING FUNDS

VOTED: The Town does hereby reauthorize the following Revolving Funds for FY 2021:

Private Way Repairs (3410) established under Article 46 1992 Annual Town Meeting
Expenditures not to exceed $200,000

Beginning Balance	**$59,606,18**
Receipts	**37, 339.35**
Expenditures	**0.00**
Ending Balance 6/30/19	**$93,000.13**

Public Way Repairs (3400) established under Article 45 1992 Annual Town Meeting
Expenditures not to exceed $5,000

Beginning Balance	**$14,715.06**
Receipts	**0.00**
Expenditures	**0.00**
Ending Balance 6/30/19	**$14,715.06**

Fox Library Community Center Rentals (3990) established under Article 49 1996 Annual Town Meeting
Expenditures not to exceed $20,000

Beginning Balance	**$1,345.47**
Receipts	**0.00**
Expenditures	**0.00**
Ending Balance 6/30/19	**$1,345.47**

Robbins House Rentals (4060) established under Article 77 1997 Annual Town Meeting
Expenditures not to exceed $75,000

Beginning Balance	**$7,865.40**

Receipts	**23,225.00**
Expenditures	**18,930.53**
Ending Balance 6/30/19	**$12,159.87**

Conservation Commission Fees (5290) established under Article 44 1996 Annual Town Meeting
Expenditures not to exceed $10,000

Beginning Balance	**$2,623.07**
Receipts	**0.00**
Expenditures	**1,100.04**
Ending Balance 6/30/19	**$1,523.03**

Uncle Sam Fees (2440) established under Article 31 2000 Annual Town Meeting
Expenditures not to exceed $2,000

Beginning Balance	**$1,526.31**
Receipts	**0.00**
Expenditures	**0.00**
Ending Balance 6/30/19	**$1,526.31**

Life Support Services (Ambulance) Fees (3210) established under Article 37 2001 Annual Town Meeting
Expenditures not to exceed $1,000,000

Beginning Balance	**$493,507.34**
Receipts	**500,734.35**
Expenditures	**468,408.23**
Ending Balance 6/30/19	**$525,833.46**

Board of Health Fees (4120) established under Article 30 2005 Annual Town Meeting
Expenditures not to exceed $100,000

Beginning Balance	**$137,141.97**
Receipts	**88,773.53**
Expenditures	**74,131.53**
Ending Balance 6/30/19	**$151,783.97**

Field User Fees (5275) established under Article 78 2004 Annual Town Meeting
Expenditures not to exceed $80,000

Beginning Balance	**$31,570.53**
Receipts	**77,064.90**
Expenditures	**35,835.00**
Ending Balance 6/30/19	**$72.800.43**

Robbins Library Rental (4250) established under Article 35 2006 Annual Town Meeting
Expenditures not to exceed $8,000

Beginning Balance	**$29,408.70**
Receipts	**7,245.00**
Expenditures	**1,723.86**
Ending Balance 6/30/19	**$34.929.84**

Town Hall Rentals (4150) established under Article 35 2006 Annual Town Meeting
Expenditures not to exceed $175,000

Beginning Balance	**$84,578.41**
Receipts	**112,349.70**
Expenditures	**90,878.18**
Ending Balance 6/30/19	**$106,049.93**

White Goods Recycling Fees (3510) established under Article 35 2006 Annual Town Meeting
Expenditures not to exceed $80,000

Beginning Balance	**$65,180.02**
Receipts	**33,305.58**
Expenditures	**38,348.27**
Ending Balance 6/30/19	**$60,137.33**

Library Vendor Fees (4220) established under Article 34 2009 Annual Town Meeting
Expenditures not to exceed $12,000

Beginning Balance	**$10,067.81**

Receipts	**4,537.00**
Expenditures	**8,562.33**
Ending Balance 6/30/19	**$7,042.48**

Gibbs School Energy Fees (2790) established under Article 45 2010 Annual Town Meeting
Expenditures not to exceed $120,000

Beginning Balance	**$8,402.46**
Receipts	**2,522.25**
Expenditures	**0.00**
Ending Balance 6/30/19	**$10,924.71**

Cemetery Chapel Rentals (3435) established under Article 52 2011 Annual Town Meeting
Expenditures not to exceed $15,000

Beginning Balance	**$0.00**
Receipts	**0.00**
Expenditures	**0.00**
Ending Balance 6/30/19	**$0.00**

Council On Aging Program Fees (3840) established under Article 28 2013 Annual Town Meeting
Expenditures not to exceed $100,000

Beginning Balance	**$29,156.15**
Receipts	**12,069.00**
Expenditures	**11,144.17**
Ending Balance 6/30/19	**$30,080.98**

(5 – 0)

COMMENT: The above summary represents the annual vote to receive reports on expenditures and receipts of the various Town revolving funds and to authorize and reauthorize such funds in accordance with state law. These funds must be reauthorized annually in order to enable expenditures from them, and as such, must be included in our abbreviated Town Meeting session. Additional materials regarding the Revolving Funds have also been included in the Appendix to this report for further consideration.

ARTICLE 52 ENDORSEMENT OF PARKING BENEFIT DISTRICT EXPENDITURES

VOTED: That the Select Board approves the operating and capital expenditures proposed by the Town Manager and Parking Implementation Governance Committee, and recommends Town Meeting's endorsement of the votes of the Finance and Capital Planning Committee's respectively.

(5 – 0)

COMMENT: Pursuant to Title I, Article 11 of the Town Bylaws, "Parking Benefit District Expenditures," proposed Parking Benefit District Operating and Capital Expenditures are prepared by the Town Manager and the Parking Implementation/Governance Committee ("PIGC") before submission for endorsement by the Finance Committee and Capital Planning Committee respectively; and subsequently Town Meeting. Similar to revolving funds, our bylaws require the Town annually submit anticipated expenditures for Town Meeting endorsement, which is why this article remains before our abbreviated session. The Select Board approves the Manager and PIGC's proposal to the Capital Planning and Finance Committees and urges Town Meeting's support as well.

Arlington Parking Fund and Arlington Center Parking Benefit District Statement of Revenues & Expenditures

Expenditures

	Projected FY21 Exp.
IPS (CC, Gateway, System)	$42,400.00
Elavon CC Fee	$58,000.00
Coin Collection	$32,052.00
First Parish Lease	$6,000.00
Lease Payments	$46,561.00
Share of Parking Enforcement	$66,827.00
Share of Parking Admin.	$37,176.00
Multi-Space Meters	$40,000.00
Parking Benefit District	$175,000.00
Total	**$504,016.00**

Revenues

	FY20 thru 12/31/19	FY20 Revenue Projections	FY21 Revenue Projection
Single Space Meters	$177,940.59	$300,000.00	$350,000.00
Multi-Space Meters	$97,300.85	$150,000.00	$175,000.00
Charging Station	$2,461.25		
Interest	$4,572.64		
Total	**$282,275.33**	**$450,000.00**	**$525,000.00**

Approved FY20 Parking Benefit District Budget

Arlington Center Sidewalk and Broadway Plaza Improvements	$150,000
Arlington Center Sidewalk and Broadway Plaza Improvements	$36,500.00
Total	**$186,500.00**

Proposed FY21 Parking Benefit District Budget

Arlington Center Sidewalk and Broadway Plaza Improvements	$50,000
Russell Common Lot Improvements	$75,000
Snow Removal	$10,000
Seasonal Planting in Center	$20,000
Planter and Tree Watering	$10,000
Sidewalk Cleaning	$10,000
Total	**$175,000**

Town of Arlington, Massachusetts

Letter and Comment to CDBG Subcommittee with Respect to CDBG Funding Enabled by the CARES Act

Summary:
Patricia Baron Warden, Former Member and Chair, Arlington Housing Authority; Town Meeting Member

ATTACHMENTS:

	Type	File Name	Description
🗋	Reference Material	CR_P._Worden.docx	P. Worden reference

-----Original Message-----
From: Patricia Worden <pbworden@hotmail.com>
To: DMahon@town.arlington.ma.us <DMahon@town.arlington.ma.us>; DDunn@town.arlington.ma.us <DDunn@town.arlington.ma.us>; christopher_potter@gse.harvard.edu <christopher_potter@gse.harvard.edu>; sacco@hds.harvard.edu <sacco@hds.harvard.edu>; sarah@sarahleeconsulting.com <sarah@sarahleeconsulting.com>; Erin Zwirko
<EZwirko@town.arlington.ma.us>; achapdelaine@town.arlington.ma.us <achapdelaine@town.arlington.ma.us>; jraitt@town.arlington.ma.us <JRaitt@town.arlington.ma.us>
Cc: JHurd@town.arlington.ma.us <JHurd@town.arlington.ma.us>; arlington@arlingtonlist.org <arlington@arlingtonlist.org>; JCurro@town.arlington.ma.us <JCurro@town.arlington.ma.us>
Sent: Wed, May 6, 2020 3:22 pm
Subject: [arlington] Emergency CDBG money allocation for Arlington residents, virus related

Amendment for Additional Community Development Block Grant (CDBG) Funds.

Comment period ends May 6, 2020 at 4 PM

Letter and comment to CDBG Subcommittee with respect to CDBG Funding Enabled by the CARES Act (COVID-19 Relief)

May 6, 2020

To: Diane Mahon, Chair, Dan Dunn, Vice Chair, Select Board
Adam Chapdelaine, Town Manager
Jennifer Raitt, Planning Director
Appointed Subcommittee Members:
Christopher Potter
Toni Sacco
Sarah Lee
Erin Zwirko

May 4, 2020

Dear Madam Chair and Committee Members,

Thank you for this opportunity to comment on the plan for spending the CARES Act funding. It should be noted that there has not been proper opportunity for community input, noting the fact that you voted already on the allocation of this funding on May 4 although the comment period has not yet ended. Comments period ends at 4:00 p.m. today, May 6. Does that mean that you are not in full compliance with HUD rules for public participation?

In my letter f April 14 I wrote that I hoped that the suggested rental assistance together with the recommended business assistance would be implemented with due transparency and inclusion of public participation in development of guidelines. Obviously that has not been the case.

That aside I thank you for rejecting the inappropriate suggestion of the Planning Director that rental assistance could be provided to residents wealthy enough to afford $4,000 monthly rents. Your limitation of these funds to low income tenants is very necessary

Also, with respect to the Funds to be Reprogrammed and, specifically, regarding the DPW Curb Ramp Program I suggested that you consider safety improvements for Chestnut Manor Residents currently under discussion by Jo Anne Preston and the Chief of Police. Despite the hazard to the low income senior population there as exemplified by a recent pedestrian fatality you chose to ignore that instead referring the matter to the Transportation Advisory Committee although you must be aware that would significantly delay resolution of that urgent problem.

However, regardless of your decision to essentially disregard the safety of Chestnut Manor residents it is outrageous that the CDBG moneys could be designated for use at this time for the ongoing standard DPW Curb Ramp Program rather than to alleviate Covid-19 related suffering in Arlington. I would like to register my strong objection if the Ramp Program has been approved in your final vote. As you know from the letter you received from federal authorities, the CARES ACT, Public Law 116-136 is designed "to respond to the growing effects of this historic health crisis." Hopefully you are aware of the needs of Arlington residents occurring from the viral emergency such as the dire need for food and other expenses of the impoverished and those stricken with COVID-19.

Please include my letter with comments invited for submission prior to May 6 at 4:00 p.m. and to be included in the submission to the U.S. Department of Housing and Urban Development.

Thank you for your kind attention,

Patricia Baron Worden
Former member and Chair, Arlington Housing Authority
Town Meeting member

Town of Arlington, Massachusetts

Exclusionary Zoom Meeting Practices

Summary:
Beth Melofchik, 20 Russell Street

ATTACHMENTS:

	Type	File Name	Description
🗋	Reference Material	B._Melofchik_C.R.docx	B. Melofchik Reference

from: **Beth Melofchik** <lzicka784@gmail.com>
date: 05/01/2020 09:26 AM
to: <dianemahon@verizon.net>, <dmahon@town.arlington.ma.us>, <arlington@arlingtonlist.org>, <Jcurro@town.arlington.ma.us>, <sdecourcey@town.arlington.ma.us>
cc: <amaher@town.arlington.ma.us>

CAUTION: This email originated from outside of the Town of Arlington's email system. Do not click links or open attachments unless you recognize the REAL sender (whose email address in the From: line in "< >" brackets) and you know the content is safe.

Diane Mahon
Chair, Select Board, Arlington MA

Dear Chair Mahon,

Please include in the May 4, 2020 Select Board meeting agenda an examination of the public meeting practices as currently implemented by Town Manager, his staff and appointed members of numerous committees and commissions and your office.

Kindly share online meeting protocol as practiced and disseminated by the Office of the Select Board and/or Town Manager and instructions with the public.

Should the limits of the Zoom platform be insurmountable for the Town Manager and his office to allow full enfranchisement of the public, kindly consider other platforms, WebEx, etc. Microsoft platforms.

Recent meetings of over 100 attendees indicate it is possible to afford full enfranchisement of the Arlington public, complete an agenda and take questions.

One wonders why the Select Board and the Town Manager and his staff choose to exclude the public much as women and people of color were excluded and in some instances continue to be excluded today.

Respectfully,
Beth Melofchik
Town Meeting Member
Flatten the curve, wash hands, wear masks as able
More women on the Select Board

NEW BUSINESS

Town of Arlington, Massachusetts

Next Scheduled Meeting of Select Board To Be Determined

Summary:

You are invited to a Zoom webinar.
When: May 18, 2020 07:15 PM Eastern Time (US and Canada)
Topic: Select Board Meeting
Please click the link below to join the webinar:
https://zoom.us/j/98422791023
Or iPhone one-tap :
US: +13126266799,,98422791023# or +16468769923,,98422791023#
Or Telephone:
Dial(for higher quality, dial a number based on your current location):
US: +1 312 626 6799 or +1 646 876 9923 or +1 301 715 8592 or +1 346 248 7799 or +1 408 638 0968 or +1 669 900 6833 or +1 253 215 8782
Webinar ID: 984 2279 1023
International numbers available: https://zoom.us/u/acrEnAnUqh

Notice to the Public on meeting privacy In the interests of preventing abuse of videoconferencing technology (i.e. Zoom Bombing) all participants, including members of the public, wishing to engage via the Zoom App must register for *each meeting* and will notice multi-step authentication protocols. Please allow additional time to join the meeting. Further, members of the public who wish to participate without providing their name may still do so by telephone dial-in information provided above.

Members of the public are asked to send written comment to amaher@town.arlington.ma.us by May 18, 2020 at 3:00 p.m.

Documents regarding agenda items will be made available via Novus Agenda and the Town's Website.

https://www.mass.gov/doc/open-meeting-law-order-march-12-2020/download